CHHATRAPATI SHAHU JI MAHARAJ UNIVERSITY, KANPUR

प्रश्नBANK
Bridge of Academic Novelties in Knowledge

KANPUR UNIVERSITY'S

QUESTION BANK

Brief and Intensive Notes
Multiple Choice Questions

Based On NEP 2020

MONETARY ECONOMICS

M.A. IV SEM

DR. YATEESH DUBEY
DR. JYOTIKA AWASTHI

M.A. (ECONOMICS)
Semester- IV
Course: Monetary Economics
Paper Code: A081001T

Credits: 5	CIA: 25 Marks	ESE: 75 Marks	Max. Marks: 100

SYLLABUS

Unit 1:	*Money Supply* – Money supply: Concept and Monetary Aggregates, Theory of Money Supply, High Powered Money and Money Multiplier, Budget Deficits and Money Supply, Determinants of Supply of Money.
Unit 2:	*Post–Keynesian Demand for Money* – Demand for Money, Overview of Keynes's Liquidity Preference Approach, Concept of Neutrality of Money and Money Illusion. Patinkin's Real Balance Effect, Crisis in Keynesian Economics and the Revival of Monetarism – Theory of Demand – M. Friedman.
Unit 3:	*Development in the Theory of Demand for Money* – Approaches of Baumol and Tobin, Turvey Approach, Liquidity Approach – Rediff Committee Report and Gurley–Shaw Thesis.
Unit 4:	*Theory of Inflation and Monetary Policy* – Phillips Curve and its Modifications, Samuelson and Solow, The Natural Rate of Unemployment and Stagflation, Adaptive Expectation Augmented Approach, Friedman–Phelps.

QUESTION BANK
PREPARED
BY

DR. YATEESH DUBEY

Assistant Professor
Department of Economics
D.A.V. College, Kanpur

DR. JYOTIKA AWASTHI

Assistant Professor
Department of Economics
D.A.V. College, Kanpur

UNIT- 1

MONEY SUPPLY

UNIT-1

Money Supply – Money supply: Concept and Monetary Aggregates, Theory of Money Supply, High Powered Money and Money Multiplier, Budget Deficits and Money Supply, Determinants of Supply of Money.

1. MEANING AND NATURE OF MONEY SUPPLY

Money supply refers to the total quantity of money available in the economy at a particular point in time. It encompasses various forms of money held by the public, including currency and deposits with financial institutions. The concept is dynamic in nature, responding to changes in economic activity, monetary policy, and financial innovation.

In a narrow sense, money supply includes those components that serve as immediate means of payment, such as currency notes and demand deposits. **In a broader sense**, it encompasses other liquid assets that can be easily converted into cash, such as time deposits and certain kinds of financial instruments.

The nature of money supply is both quantitative and functional.

Quantitatively, it represents a stock variable measured at a particular point in time. Functionally, it reflects the purchasing power in the hands of the public, enabling the flow of goods and services in the economy.

In its practical application, the supply of money is not limited to the physical currency issued by the central bank. It includes the money created through the credit operations of commercial banks. Banks, by extending loans and creating deposits, significantly expand the total volume of money in circulation. Thus, the process of credit creation plays a critical role in determining the overall supply of money.

2. MEASURES OF MONEY SUPPLY IN INDIA (M1, M2, M3, M4)

The RBI defines four principal measures of money supply: M1, M2, M3, and M4. Each of these aggregates captures a progressively broader view of the money stock in the economy.

2.1. M1 – (Narrow Money)

M1 is the most liquid form of money and is often referred to as transaction money. It includes:

- **Currency with the public**, which comprises notes and coins issued by the Reserve Bank of India and the Government of India, excluding cash held by banks.
- **Demand deposits with the banking system**, which refer to deposits that can be withdrawn on demand without prior notice, such as current accounts and savings deposits without withdrawal restrictions.
- **Other deposits with the Reserve Bank of India**, which include deposits of foreign central banks, financial institutions, and certain other specified bodies.

M1 = Currency with the public + Demand deposits with banks + Other deposits with RBI

M1 is highly liquid and serves as the primary medium for conducting transactions in the economy. It is closely watched by policymakers for short-term changes in monetary conditions.

2.2. M2 – (M1 Plus Savings with Post Office)

M2 extends the definition of M1 by including savings deposits with post office savings banks, excluding those covered under National Savings Certificates and other long-term instruments.

M2 = M1 + Savings deposits with post office savings banks

This measure includes a slightly less liquid component than M1 but still remains relevant for analyzing the transactional capacity of the public.

2.3. M3 – (Broad Money)

M3 is the most commonly used aggregate in monetary policy and macroeconomic analysis. It includes all components of M1 along with time deposits with the banking system, such as fixed deposits and recurring deposits, which have a specified maturity period.

M3 = M1 + Time deposits with banks

M3 is also known as broad money and reflects the store-of-value function of money. It is the main indicator used by the RBI to assess the impact of monetary expansion on inflation, savings, investment, and aggregate demand. Because time deposits are a significant portion of financial savings in India, M3 offers a more comprehensive picture of money available in the economy.

2.4. M4 – (The Broadest Measure)

M4 includes all components of M3 along with the total deposits with the post office savings banks, excluding National Savings Certificates and similar instruments.

M4 = M3 + Total post office savings deposits

M4 is the broadest measure of money supply, encompassing all forms of liquid and near-liquid assets that can potentially be used for consumption or investment. However, due to the limited role of post office savings in active transactions, M4 is less frequently used in policy analysis.

2.5. Liquidity and Use in Monetary Policy

These measures of money supply differ in terms of liquidity. M1 is the most liquid and readily available for spending, while M3 and M4 include components with relatively lower liquidity but higher saving characteristics. In India, **M3 is the principal aggregate** used for monetary targeting due to its close correlation with key economic variables such as inflation and output growth.

3. HIGH-POWERED MONEY AND THE MONEY MULTIPLIER

In understanding the process of money creation in the economy, two closely related concepts play a crucial role—high-powered money (also called reserve money or base money) and the money multiplier. Together, they form the backbone of the monetary system, helping to explain how a relatively small monetary base can support a much larger volume of total money supply.

3.1 High-Powered Money (Reserve Money)

High-powered money refers to the sum of currency issued by the central bank and the reserves held by commercial banks. It is termed "high-powered" because it serves as the foundation upon which the banking system creates additional money through credit expansion. High-powered money is under the direct control of the central bank and represents the most liquid form of monetary base.

Mathematically, it is defined as:

$$H = C + R + ER$$

Where:

H = High-powered money

C = Currency held by the public

R = Cash reserves of commercial banks with the central bank

ER = Excess Reserves

High-powered money is thus composed of two components: **currency in circulation** and **bank reserves**. The central bank injects this money into the economy through the purchase of government securities, lending to banks, or financing government deficits. It forms the raw material for credit creation in the banking system.

3.2. Money Multiplier

The money multiplier indicates the extent to which the money supply increases as a result of an increase in high-powered money. It reflects the ability of the banking system to expand the money supply on the basis of a given amount of reserves.

The formula for the money multiplier is:

$$m = \frac{M}{H}$$

Where:

m = Money multiplier

M = Total money supply

H = High-powered money

The size of the money multiplier depends on two key ratios:

1. **Currency-Deposit Ratio (c)**: The ratio of currency held by the public to their demand deposits with banks.
2. **Reserve-Deposit Ratio (r)**: The proportion of total deposits that banks are required (or choose) to hold as reserves.

Using these ratios, the money multiplier can be more precisely expressed as:

$$m = \frac{1 + Cr}{Cr + Rr + Er}$$

A lower reserve ratio and currency-deposit ratio result in a higher multiplier, indicating greater credit creation. Conversely, a higher reserve requirement or preference for holding cash reduces the multiplier.

4. DETERMINANTS OF MONEY SUPPLY

The total supply of money in an economy is not determined solely by the central bank. It is the outcome of a complex interaction among various institutional and behavioural factors. While the central bank exercises control over certain elements of money supply, other variables such as the behaviour of commercial banks and the preferences of the public also play a significant role.

4.1. Monetary Base (High-Powered Money)

As previously discussed, the most fundamental determinant of money supply is the volume of high-powered money. This includes the currency issued by the central bank and the reserves held by commercial banks. The central bank directly controls the size of the monetary base through its policy tools, and it serves as the primary raw material for money creation.

An increase in the monetary base typically leads to an expansion of the money supply, provided the money multiplier remains constant. Conversely, a contraction in reserve money reduces the potential for money creation.

4.2. Reserve Ratio

The reserve ratio refers to the proportion of total deposits that banks are required to hold as reserves—either in their vaults or with the central bank. There are two types of reserve requirements:

- **Cash Reserve Ratio (CRR)**: A mandatory portion of deposits that banks must maintain with the central bank.
- **Statutory Liquidity Ratio (SLR)**: A certain percentage of net demand and time liabilities that banks must hold in the form of cash, gold, or approved government securities.

An increase in reserve requirements restricts the ability of banks to lend, thereby reducing the money multiplier and the total money supply. On the other hand, a lower reserve ratio enables banks to extend more credit, thereby expanding the money supply.

4.3. Currency-Deposit Ratio

This ratio indicates the preference of the public for holding currency relative to deposits in the banking system. A higher currency-deposit ratio implies that people are choosing to hold more of their money in the form of cash, rather than depositing it in banks. This limits the capacity of commercial banks to create credit, thereby reducing the money multiplier.

In contrast, when the public prefers to keep money in bank accounts, the deposit base increases and banks are able to create more credit, leading to an expansion in the money supply. This

ratio is influenced by factors such as trust in the banking system, transaction needs, and the development of financial infrastructure.

4.4. Banking Habits and Financial Development

In economies with well-developed banking habits and efficient financial systems, a greater proportion of money remains within the banking network, leading to higher credit creation. Financial innovations, mobile banking, and digital wallets have further encouraged banking habits, impacting the currency-deposit ratio and the velocity of money.

4.5. Level of Economic Activity

The overall level of business activity and income in the economy also affects money supply. During periods of high economic growth, demand for money rises due to increased transactions, leading banks to expand credit and thereby increase the money supply. In times of recession or stagnation, reduced demand for credit may shrink the money supply, even if the central bank adopts an expansionary stance.

4.6. Public Preferences and Liquidity

Behavioural aspects such as risk perception, expectations of inflation, and preference for liquidity affect how the public allocates its money between currency and deposits.

4.7. Credit Policies of Commercial Banks

Although the central bank sets the overall policy framework, the actual process of money creation is carried out by commercial banks. The extent to which banks are willing to lend, the sectors they target, and their internal risk assessments influence how much credit—and thus money—is created.

4.8. Government Fiscal Operations

Fiscal policy, particularly the financing of government deficits, has a direct impact on the money supply. If the government borrows from the central bank (monetization of deficit), it leads to the creation of new high-powered money, increasing the money supply. On the other hand, if the deficit is financed through market borrowing, the impact may be neutral or even contractionary, depending on the response of private credit markets.

4.9. External Sector and Foreign Exchange Operations

When the central bank buys foreign currency, it injects rupees into the system, increasing the monetary base. Conversely, selling foreign exchange can absorb liquidity, contracting the money supply. The accumulation of foreign exchange reserves and movements in capital flows thus indirectly affect domestic liquidity.

5. THEORIES OF MONEY SUPPLY:

5.1 Classical Theory of Money Supply

The Classical economists such as David Hume, Adam Smith, David Ricardo, and J.S. Mill did not formulate a distinct theory of money supply, but treated it as exogenously determined, mainly by the amount of gold or precious metals in the economy. The cornerstone of their approach is the Quantity Theory of Money expressed as:

$$MV = PY$$

Where:

M = Money supply

V = Velocity of circulation (constant)

P = Price level

Y = Real output (full employment level)

Assumptions:

- Money is neutral in the long run.
- Output is determined by real factors.
- V is constant.
- $P \propto M$

Conclusion:

- Money supply is exogenous.
- Changes in M affect only P.

Criticism:

- Ignores credit creation.
- Assumes full employment.
- Cannot explain short-term fluctuations.

5.2 Keynesian Theory of Money Supply

Keynes emphasized the demand for money rather than its supply. However, in his framework, money supply is exogenously controlled by the central bank through instruments such as: Open Market Operations, Bank Rate Policy and Cash Reserve Ratio.

According to Keynes:

- Central bank controls monetary base (H).
- Money supply influenced by banking behaviour and public preferences.

Limitations:

- ❖ Assumes a stable money multiplier.
- ❖ Ignores dynamic credit behaviour.
- ❖ Less effective in a liquidity trap.

5.3 Monetarist Theory of Money Supply

Milton Friedman led the Monetarist school which stressed that money supply is the primary determinant of nominal income and inflation. Monetarists believe money supply is exogenously set by the central bank.

They use the equation:

$$M = m \times H$$

Friedman's Monetary Rule:

"Money supply should grow at a constant rate equal to the growth of real output."

Conclusion:

- ➢ Stable money supply ensures price stability.
- ➢ M affects nominal income in short run; prices in the long run.

Criticism:

- Assumes stable money demand.
- Overlooks banking and credit system complexities.
- Ignores endogenous money factors.

Comparison:

Feature	Classical	Keynesian	Monetarist
Control of Money Supply	Exogenous	Exogenous (via H)	Exogenous
Emphasis	Price level	Interest rate, liquidity	Nominal GDP, inflation
Money Demand	Passive	Active (Liquidity Preference)	Stable function
Policy Approach	Gold Standard/Fixed	Discretionary Policy	Fixed Money Growth Rule
Money Neutrality	Neutral (long-run)	Non-neutral (short-run)	Non-neutral (short-run), neutral (long-run)
Velocity of Money	Constant	Variable	Predictable

6. BUDGET DEFICITS AND THEIR IMPACT ON MONEY SUPPLY

Budget deficits arise when the government's total expenditures exceed its total revenue (excluding borrowings) during a fiscal year. In macroeconomic terms, a budget deficit reflects an imbalance between public spending and income, which necessitates borrowing or other forms of financing. While budget deficits are primarily a fiscal matter, they have significant monetary implications, particularly in relation to the money supply and inflation.

6.1. Nature and Types of Budget Deficits

There are several forms of budget deficits used in fiscal and monetary analysis:

- **Revenue Deficit**: Occurs when revenue expenditure exceeds revenue receipts. It indicates that the government is borrowing to finance current consumption rather than investment.
- **Fiscal Deficit**: The most comprehensive measure, defined as total expenditure minus total receipts (excluding borrowings). It represents the total borrowing requirement of the government.

Fiscal Deficit=Total Expenditure − (Revenue Receipts + Non-debt Capital Receipts)

- **Primary Deficit**: This is the fiscal deficit excluding interest payments, showing the borrowing requirement for purposes other than interest servicing.

Primary Deficit = Fiscal Deficit − Interest Payments

6.2. Financing of Budget Deficits

The manner in which a government finances its deficit has a direct bearing on the money supply. There are mainly two ways to finance a budget deficit:

i. Borrowing from the Central Bank (Monetization of Deficit)

When the government borrows from the central bank (such as the Reserve Bank of India), it effectively leads to the creation of new money. The central bank credits the government's account, and in return, holds government securities. This process is termed **monetization of deficit** and directly increases **high-powered money**, thereby expanding the overall money supply.

ii. Borrowing from the Market

Alternatively, the government may borrow from the public and commercial banks through the sale of bonds and securities. If commercial banks purchase these securities by creating credit, the money supply still increases. However, if the borrowing comes from genuine savings or surplus funds, the impact on money supply may be neutral or limited.

Excessive market borrowing by the government can also lead to **crowding out**, where private investment is reduced due to higher interest rates.

7. CONTROL OF MONEY SUPPLY

The regulation of the money supply is a core responsibility of a country's central bank. Effective control over money supply is essential for maintaining economic stability, controlling inflation, influencing interest rates, and supporting sustainable growth. Through a variety of instruments, the central bank ensures that the money supply remains consistent with the economy's needs.

7.1. Objectives of Money Supply Control

- The primary objectives behind controlling the money supply include:
- Maintaining price stability
- Promoting economic growth
- Managing inflation and deflation
- Stabilizing the currency and maintaining exchange rate equilibrium
- Ensuring adequate liquidity for productive investment

To achieve these objectives, the central bank utilizes **quantitative** and **qualitative** tools of monetary policy.

7.2. Quantitative (General) Instruments of Monetary Policy

These tools aim to regulate the overall volume of credit in the economy and are general in nature, affecting all sectors uniformly.

i. Bank Rate Policy

The bank rate is the rate at which the central bank lends to commercial banks, typically against approved securities. A change in the bank rate influences the cost of borrowing in the entire banking system.

- An increase in the bank rate discourages borrowing, reduces liquidity, and contracts the money supply.
- A decrease in the bank rate encourages borrowing, enhances liquidity, and expands the money supply.

Although less frequently used today, the bank rate still serves as a long-term signal of the monetary policy stance.

ii. Open Market Operations (OMO)

Open market operations involve the buying and selling of government securities by the central bank in the open market.

- When the central bank sells securities, it withdraws liquidity from the system, thereby reducing the money supply.
- When it purchases securities, it injects liquidity, increasing the money supply.

OMO is one of the most powerful and flexible tools for day-to-day liquidity management.

iii. Cash Reserve Ratio (CRR)

CRR refers to the proportion of a bank's total demand and time liabilities that must be maintained with the central bank in cash form.

- A high CRR limits the funds available for credit creation, reducing the money supply.
- A low CRR increases lending capacity, expanding the money supply.

CRR is a direct instrument for regulating the base on which banks create credit.

iv. Statutory Liquidity Ratio (SLR)

SLR is the minimum percentage of net demand and time liabilities that banks must maintain in the form of liquid assets such as cash, gold, or government securities.

Like CRR, changes in SLR influence the credit-creating capacity of banks. A high SLR restricts lending, while a lower SLR enhances it.

7.3. Qualitative (Selective) Instruments of Monetary Policy

Qualitative tools are targeted instruments aimed at regulating the flow of credit to specific sectors rather than the overall money supply.

i. Margin Requirements

By altering the margin (i.e., the difference between the loan amount and the value of collateral), the central bank can influence the volume of credit extended for speculative or non-essential purposes. Higher margins reduce borrowing against securities.

ii. Credit Rationing

This involves setting limits on the amount of credit that banks can extend either in total or to specific sectors. Credit rationing is particularly useful during times of credit inflation or in sectors prone to speculation.

iii. Moral Suasion

The central bank often engages in moral suasion—persuasive tactics and guidance—to influence the behaviour of commercial banks. Through periodic meetings, statements, and policy directions, the central bank may urge banks to limit credit or channel it to priority sectors.

iv. Direct Action

In cases of non-compliance, the central bank may resort to direct punitive measures, such as penal interest rates or restrictions on lending. Direct action is usually employed when moral suasion fails to achieve the desired effect.

UNIT-1

MULTIPLE CHOICE QUESTIONS (MCQs)

1. Which of the following best defines money supply?

A. Total value of assets in an economy

B. Total stock of money in circulation with the public

C. Government expenditure in a fiscal year

D. Total foreign reserves of the central bank

Answer: B. Total stock of money in circulation with the public

2. The narrowest measure of money supply in India is:

A. M1

B. M2

C. M3

D. M4

Answer: A. M1

3. The most commonly used measure of money supply by RBI is:

A. M1

B. M2

C. M3

D. M4

Answer: C. M3

4. M3 includes:

A. Currency with public + demand deposits + time deposits with banks

B. Only demand deposits with banks

C. Currency with public + demand deposits

D. None of the above

Answer: A. Currency with public + demand deposits + time deposits with banks

5. M4 includes M3 and:

A. Foreign Exchange Reserves

B. Treasury Bills

C. Gold Reserves

D. Post Office savings deposits

Answer: D. Post Office savings deposits

6. Which of the following is not included in M1?

A. Currency with the public

B. Demand deposits with banks

C. Time deposits with banks

D. Other deposits with RBI

Answer: C. Time deposits with banks

7. High Powered Money is also referred to as:

A. Base Money

B. Broad Money

C. Fiat Money

D. Token Money

Answer: A. Base Money

8. High Powered Money consists of:

A. Only bank deposits

B. Only Currency

C. Treasury Bills

D. Currency issued by government and RBI + deposits with RBI

Answer: D. Currency issued by government and RBI + deposits with RBI

9. Money Multiplier is the ratio of:

A. Currency to reserves

B. Money supply to high powered money

C. Reserve ratio to inflation

D. High powered money to money supply

Answer: B. Money supply to high powered money

10. If the reserve ratio decreases, the money multiplier:

A. Increases

B. Decreases

C. Remains unchanged

D. Becomes zero

Answer: A. Increases

11. The primary determinant of the money multiplier is:

A. Government spending

B. Currency deposit ratio and reserve ratio

C. Tax collection

D. Export levels

Answer: B. Currency deposit ratio and reserve ratio

12. An increase in budget deficit generally:

A. Reduces money supply

B. Has no impact on money supply

C. Leads to deflation

D. Increases money supply through central bank financing

Answer: D. Increases money supply through central bank financing

13. The process through which budget deficit leads to increased money supply is known as:

A. Monetization of deficit

B. Sterilization

C. Capital flight

D. Fiscal consolidation

Answer: A. Monetization of deficit

14. Which institution primarily controls the money supply in India?

A. Ministry of Finance

B. State Bank of India

C. Reserve Bank of India

D. SEBI

Answer: C. Reserve Bank of India

15. Which of the following factors does not directly affect the supply of money?

A. Cash reserve ratio

B. Bank rate

C. Literacy rate

D. Open market operations

Answer: C. Literacy rate

16. Monetary aggregates are classified by:

A. Ministry of Commerce

B. Central Statistical Office

C. Planning Commission

D. Reserve Bank of India

Answer: D. Reserve Bank of India

17. Currency held by the public and demand deposits with banks constitute:

A. M1

B. M3

C. M2

D. M4

Answer: A. M1

18. Which of the following measures is considered a broad measure of money supply?

A. M0

B. M1

C. M3

D. M2

Answer: C. M3

19. If people prefer to hold more cash relative to deposits, the money multiplier will:

A. Increase

B. Decrease

C. Remain unchanged

D. Double

Answer: B. Decrease

20. The money supply in an economy is determined jointly by the:

A. Central bank and government

B. Commercial banks and central bank

C. Commercial banks and Ministry of Finance

D. Central bank and commercial banks

Answer: D. Central bank and commercial banks

21. The term "monetary aggregates" refers to:

A. Government expenditure categories

B. Categories of central bank assets

C. Taxation levels

D. Measures of the money supply

Answer: D. Measures of the money supply

22. Who first introduced the concept of High-Powered Money in India?

A. Raghuram Rajan

B. C. Rangarajan

C. S. Chakravarty

D. K.C. Chakrabarty

Answer: B. C. Rangarajan

23. A fall in the cash reserve ratio (CRR) will likely:

A. Increase the money supply

B. Reduce inflation

C. Decrease lending

D. Increase interest rates

Answer: A. Increase the money supply

24. The money supply will increase if:

A. Public holds more currency

B. Banks increase reserves

C. Banks lend more of their deposits

D. The government cuts taxes

Answer: C. Banks lend more of their deposits

25. Which of the following is an instrument of credit control?

A. Income tax

B. Open market operations

C. Government bonds

D. Balance of payments

Answer: B. Open market operations

26. The "credit multiplier" is another name for:

A. Reserve ratio

B. Money multiplier

C. Fiscal deficit

D. Budget surplus

Answer: B. Money multiplier

27. What does M2 include?

A. M1 + time deposits with banks

B. M1 + savings with post offices

C. M1 + current deposits

D. M3 + bank rate

Answer: B. M1 + savings with post offices

28. The theory of money supply emphasizes the role of:

A. Demand for money only

B. Only the government

C. RBI and commercial banks

D. International trade

Answer: C. RBI and commercial banks

29. Budget deficit financing through RBI borrowing causes:

A. Increase in money supply

B. Increase in tax revenue

C. Decrease in inflation

D. Lower interest rates automatically

Answer: A. Increase in money supply

30. In the quantity theory of money, the supply of money is considered:

A. Constant

B. Negligible

C. Unstable

D. Increasing exponentially

Answer: A. Constant

31. Which aggregate includes all components of M3 and also savings in post offices?

A. M4

B. M2

C. M1

D. M0

Answer: A. M4

32. A lower reserve requirement means:

A. Banks must hold more reserves

B. Banks can lend more

C. Reduction in money supply

D. Higher currency-deposit ratio

Answer: B. Banks can lend more

33. Currency deposit ratio is the ratio of:

A. Time deposits to currency

B. Cash with banks to credit

C. RBI's reserves to total money

D. Currency with public to demand deposits

Answer: D. Currency with public to demand deposits

34. Which of these will not cause an increase in the supply of money?

A. Fall in CRR

B. Government borrowing from RBI

C. Decrease in bank rate

D. Increase in statutory liquidity ratio (SLR)

Answer: D. Increase in statutory liquidity ratio (SLR)

35. Which of the following is known as Reserve Money?

A. M1

B. M3

C. M0

D. M4

Answer: C. M0

36. An increase in the statutory liquidity ratio (SLR) means:

A. Banks lend more

B. Money supply contracts

C. RBI increases reserve money

D. No impact on monetary base

Answer: B. Money supply contracts

37. The most liquid form of money is:

A. M1

B. M2

C. M3

D. M4

Answer: A. M1

38. What happens when banks increase their excess reserves?

A. Credit creation increases

B. Money supply falls

C. Inflation rises

D. Currency depreciates

Answer: B. Money supply falls

39. Which of the following is not a determinant of money supply?

A. Currency-deposit ratio

B. Reserve ratio

C. Income tax rates

D. High powered money

Answer: C. Income tax rates

40. Which monetary aggregate includes time deposits with banks?

A. M0

B. M1

C. M3

D. None of the above

Answer: C. M3

41. Broad money is referred to as:

A. M0

B. M1

C. M4

D. M3

Answer: D. M3

42. In India, who publishes data on monetary aggregates?

A. Ministry of Finance

B. SEBI

C. NITI Aayog

D. Reserve Bank of India

Answer: D. Reserve Bank of India

43. If people decide to hold more cash and fewer deposits, the money multiplier will:

A. Increase

B. Decrease

C. Remain constant

D. Double

Answer: B. Decrease

44. Which of the following reduces the effectiveness of monetary policy?

A. Increase in CRR

B. Rise in inflation

C. High currency-deposit ratio

D. Lower fiscal deficit

Answer: C. High currency-deposit ratio

45. The primary source of high-powered money in India is:

A. Ministry of Finance

B. State Bank of India

C. Post Office

D. Reserve Bank of India

Answer: D. Reserve Bank of India

46. Which component of money supply has the highest liquidity?

A. Savings deposits

B. Currency with public

C. Time deposits

D. Fixed deposits

Answer: B. Currency with public

47. Open Market Operations involve:

A. Sale and purchase of government securities

B. Trade liberalization

C. Issue of currency notes

D. Changes in income tax

Answer: A. Sale and purchase of government securities

48. What is the effect of an increase in high powered money, holding other things constant?

A. Inflation falls

B. Money supply contracts

C. Money supply expands

D. Interest rate rises

Answer: C. Money supply expands

49. The term "monetary base" includes:

A. M1 + M2

B. Treasury bills only

C. Time deposits + foreign currency

D. Cash reserves with public + deposits with RBI

Answer: D. Cash reserves with public + deposits with RBI

50. The supply of money is considered:

A. Endogenous in classical theory

B. Exogenous in classical theory

C. Constant in Keynesian theory

D. Determined solely by commercial banks

Answer: B. Exogenous in classical theory

51. Which factor can raise the money multiplier?

A. Decrease in reserve ratio

B. Increase in reserve ratio

C. Increase in CRR

D. Fall in money demand

Answer: A. Decrease in reserve ratio

52. A fall in the statutory liquidity ratio leads to:

A. Lower bank credit

B. Reduction in money supply

C. Higher inflation

D. Increased lending capacity of banks

Answer: D. Increased lending capacity of banks

53. What does “demand deposit” mean?

A. Deposit which is fixed for a period

B. Deposit available on demand

C. Deposit used for loans

D. Foreign currency deposit

Answer: B. Deposit available on demand

54. The formula for Money Supply (M) using the money multiplier is:

A. $M = m \times H$

B. $M = H + R$

C. $M = C + T$

D. $M = GDP \times V$

Answer: A. $M = m \times H$

55. The velocity of money is:

A. The rate at which banks lend

B. Equal to reserve ratio

C. Equal to money multiplier

D. The number of times money changes hands

Answer: D. The number of times money changes hands

56. Which of these leads to expansion of money supply?

A. Selling of government securities

B. Increase in CRR

C. Fall in reserve-deposit ratio

D. Rise in taxation

Answer: C. Fall in reserve-deposit ratio

57. A rise in the currency-deposit ratio leads to:

A. A fall in the money multiplier

B. An increase in money supply

C. An increase in reserve money

D. A stable monetary base

Answer: A. A fall in the money multiplier

58. Which among the following is not a qualitative instrument of credit control?

A. Margin requirements

B. Moral suasion

C. Open market operations

D. Credit rationing

Answer: C. Open market operations

59. The cash reserve ratio is determined by:

A. Ministry of Finance

B. State Bank of India

C. NITI Aayog

D. Reserve Bank of India

Answer: D. Reserve Bank of India

60. Which of these factors increase the value of money multiplier?

A. Higher cash-deposit ratio

B. Higher reserve ratio

C. Lower reserve ratio

D. Higher fiscal deficit

Answer: C. Lower reserve ratio

61. What causes a decline in money supply, holding all else constant?

A. Increase in government borrowing

B. Fall in reserve requirement

C. Banks extending more loans

D. Withdrawal of currency by public

Answer: D. Withdrawal of currency by public

62. Which of the following measures helps in controlling inflation by reducing money supply?

A. Decrease in CRR

B. Increase in SLR

C. Reduction in repo rate

D. Fiscal stimulus

Answer: B. Increase in SLR

63. The major components of M1 include:

A. Currency + demand deposits + other deposits with RBI

B. Time deposits + post office deposits

C. Only time deposits

D. Currency + foreign reserves

Answer: A. Currency + demand deposits + other deposits with RBI

64. Money supply is exogenously determined according to:

A. Keynesian model

B. Classical theory

C. Modern monetary theory

D. Supply-side economics

Answer: B. Classical theory

65. What is the impact of an open market purchase by the RBI on the money supply?

A. No effect

B. Reduces money supply

C. Raises the CRR

D. Increases money supply

Answer: D. Increases money supply

66. Reserve money is also referred to as:

A. Monetary base

B. Fiat money

C. Demand deposits

D. Secondary money

Answer: A. Monetary base

67. Which of the following best describes 'demonetization' in the context of money supply?

A. Introduction of new currency

B. Increase in public savings

C. Fall in inflation

D. Withdrawal of legal tender status from currency

Answer: D. Withdrawal of legal tender status from currency

68. Which component of money supply is the least liquid?

A. Currency

B. Demand deposits

C. Time deposits

D. Other deposits with RBI

Answer: C. Time deposits

69. A fall in the bank rate generally leads to:

A. Contraction in credit

B. Higher cost of borrowing

C. Expansion in money supply

D. None of the above

Answer: C. Expansion in money supply

70. Which policy tool does the central bank use to directly affect money supply?

A. Income tax

B. Repo rate

C. Foreign trade policy

D. Budget presentation

Answer: B. Repo rate

71. Which theory relates closely to the identity MV = PY?

A. Quantity theory of money

B. Keynesian theory

C. Real balance effect

D. Liquidity preference theory

Answer: A. Quantity theory of money

72. Money multiplier varies inversely with:

A. Currency-deposit ratio

B. Inflation rate

C. Reserve ratio

D. Both A and C

Answer: D. Both A and C

73. Commercial banks contribute to money supply primarily through:

A. Setting interest rates

B. Lending activities

C. Import financing

D. Tax collection

Answer: B. Lending activities

74. Which factor does not influence the value of high-powered money?

A. RBI credit to government

B. Public currency holdings

C. Foreign exchange reserves

D. Number of banks

Answer: D. Number of banks

75. What is the impact of RBI selling securities in the open market?

A. Fall in money supply

B. Rise in public deposits

C. Increase in inflation

D. None of the above

Answer: A. Fall in money supply

76. In the money multiplier formula, a higher reserve ratio leads to:

A. Lower money multiplier

B. Higher money multiplier

C. No change

D. Increased high-powered money

Answer: A. Lower money multiplier

77. What is the function of the Statutory Liquidity Ratio (SLR)**?**

A. Helps control inflation

B. Increases imports

C. Encourages deficit spending

D. Regulates tax policy

Answer: A. Helps control inflation

78. The "monetization of deficit" refers to:

A. Increasing export subsidies

B. Financing fiscal deficit by borrowing from RBI

C. Raising taxes

D. Increasing foreign investment

Answer: B. Financing fiscal deficit by borrowing from RBI

79. The monetarist school believes money supply affects:

A. Long-run unemployment

B. Short-run inflation only

C. Price level and nominal income

D. Real interest rate only

Answer: C. Price level and nominal income

80. The reserve ratio affects money supply through:

A. Changing interest rate directly

B. Changing fiscal deficit

C. Changing foreign exchange rate

D. Changing amount of credit banks can create

Answer: D. Changing amount of credit banks can create

81. Which monetary aggregate includes all components of M1 and also post office savings deposits?

A. M2

B. M3

C. M4

D. M0

Answer: A. M2

82. Which of the following increases high-powered money?

A. Increase in CRR

B. RBI credit to commercial banks

C. Reduction in money multiplier

D. Cut in fiscal spending

Answer: B. RBI credit to commercial banks

83. What is the effect of a rise in CRR?

A. Money supply expands

B. Banks lend more

C. Money supply contracts

D. Inflation increases

Answer: C. RBI credit to commercial banks

84. Which monetary aggregate is most useful to study inflation trends?

A. M1

B. M2

C. M3

D. M4

Answer: C. M3

85. An increase in bank deposits leads to:

A. Expansion in money supply

B. Fall in money supply

C. Fall in reserve money

D. No effect

Answer: A. Expansion in money supply

86. The monetary base is directly controlled by:

A. Commercial banks

B. Parliament

C. RBI

D. Planning Commission

Answer: C. RBI

87. A rise in the currency-deposit ratio is likely to lead to:

A. More bank lending

B. Increase in money multiplier

C. Fall in money multiplier

D. Higher deposit base

Answer: C. Fall in money multiplier

88. Which policy can help reduce excess money supply?

A. Expansionary fiscal policy

B. Reduction in bank rate

C. Increase in public spending

D. Sale of government securities

Answer: D. Sale of government securities

89. A reduction in repo rate leads to:

A. Fall in inflation

B. Expansion in money supply

C. Decrease in credit creation

D. Decrease in fiscal deficit

Answer: B. Expansion in money supply

90. In the money supply process, banks act as:

A. Money creators

B. Money consumers

C. Money regulators

D. Budget planners

Answer: A. Money creators

91. Post office savings are included in:

A. M1

B. M2 and M4

C. Only M0

D. Not included in monetary aggregates

Answer: B. M2 and M4

92. The main difference between M1 and M3 is:

A. Inclusion of time deposits in M3

B. Inclusion of foreign currency in M3

C. Exclusion of demand deposits in M3

D. Inclusion of post office savings in M3

Answer: A. Inclusion of time deposits in M3

93. Which institution regulates the flow of money in India?

A. Ministry of Finance

B. State Bank of India

C. Planning Commission

D. Reserve Bank of India

Answer: D. Reserve Bank of India

94. An increase in the money supply, holding output constant, will:

A. Increase real GDP

B. Lower the price level

C. Cause inflation

D. Improve terms of trade

Answer: C. Cause inflation

95. What is meant by the term "fiat money"?

A. Commodity-backed money

B. Gold-backed currency

C. Money backed by foreign reserves

D. Legal tender without intrinsic value

Answer: D. Legal tender without intrinsic value

96. The main objective of monetary policy is to:

A. Encourage imports

B. Increase subsidies

C. Maintain price stability

D. Enhance tax collection

Answer: C. Maintain price stability

97. M4 is equal to:

A. M3 + total post office savings

B. M2 + M3

C. M1 + demand drafts

D. M3 + call money

Answer: A. M3 + total post office savings

98. An increase in bank credit leads to:

A. Reduction in inflation

B. Fiscal contraction

C. Fall in GDP

D. Rise in money supply

Answer: D. Rise in money supply

99. Which monetary aggregate reflects the most inclusive measure of money in India?

A. M0

B. M2

C. M3

D. M4

Answer: D. M4

100. What is the immediate impact of an RBI open market sale of securities?

A. Increase in bank liquidity

B. Contraction of money supply

C. Rise in inflation

D. Expansion in aggregate demand

Answer: B. Contraction of money supply

101. In the formula M = m × H, 'H' represents:

A. High powered money

B. Currency with public

C. Monetary policy

D. Household income

Answer: A. High powered money

102. What happens when banks keep more reserves than required?

A. Less money supply

B. More credit creation

C. Higher inflation

D. More demand deposits

Answer: A. Less money supply

103. The repo rate refers to the rate at which:

A. RBI borrows from public

B. RBI lends to commercial banks

C. Banks borrow from foreign institutions

D. Government lends to public

Answer: B. RBI lends to commercial banks

104. What is the impact of high money supply on inflation?

A. Deflation occurs

B. No impact

C. Reduces demand

D. Upward pressure on prices

Answer: D. Upward pressure on prices

105. Money supply is said to be endogenous when it is:

A. Fully controlled by RBI

B. Determined by government borrowing

C. Influenced by demand for money and credit creation

D. Determined by foreign capital

Answer: C. Influenced by demand for money and credit creation

106. If velocity of money increases while money supply is constant, what happens?

A. Nominal GDP increases

B. Price level falls

C. Real income falls

D. CRR increases

Answer: A. Nominal GDP increases

107. Which of the following is an active instrument of monetary policy?

A. Public debt

B. Currency issue

C. Fiscal policy

D. Bank rate

Answer: A. Bank rate

108. A fall in the repo rate encourages:

A. Decrease in lending

B. Reduction in liquidity

C. Increase in bank credit

D. Fall in aggregate demand

Answer: C. Increase in bank credit

109. In India, M3 is the most widely used aggregate for:

A. Budgeting

B. Tax calculation

C. Monetary policy analysis

D. Forex exchange

Answer: C. Monetary policy analysis

110. What does credit creation by banks depend on?

A. Value of currency in circulation

B. Size of reserves and reserve ratio

C. Trade balance

D. Government subsidies

Answer: B. Size of reserves and reserve ratio

111. According to the Classical economists, money supply is:

A. Endogenously determined

B. Exogenously determined

C. Determined by interest rate

D. Influenced by demand for credit

Answer: B. Exogenously determined

112. The Classical Quantity Theory of Money is expressed as:

A. PY = MV

B. MV = PQ

C. M = PY

D. MV = PY

Answer: D. MV = PY

113. In the Classical theory, velocity of money is assumed to be:

A. Variable

B. Influenced by monetary policy

C. Constant

D. Zero

Answer: C. Constant

114. Which economist popularized the Equation of Exchange in classical theory?

A. Irving Fisher

B. Milton Friedman

C. John Maynard Keynes

D. R.G. Hawtrey

Answer: A. Irving Fisher

115. In the Classical model, changes in the money supply affect:

A. Real income

B. Employment

C. Output

D. Price level

Answer: D. Price level

116. The Classical theory assumes that the economy always operates at:

A. Underemployment equilibrium

B. Full employment

C. Disequilibrium

D. Natural unemployment

Answer: B. Full employment

117. Keynes believed that the money supply is determined by:

A. Commercial banks

B. Public preferences

C. Central bank

D. Demand for money

Answer: C. Central bank

118. In Keynesian economics, money supply is:

A. Endogenously determined

B. Exogenously controlled via policy tools

C. Determined by price level

D. Determined by investment decisions

Answer: B. Exogenously controlled via policy tools

119. Keynes introduced the concept of:

A. Constant velocity

B. Liquidity preference

C. Monetary rule

D. Natural rate of unemployment

Answer: B. Liquidity preference

120. Which of the following is NOT a tool of central bank in controlling money supply in Keynesian theory?

A. Open Market Operations

B. Bank Rate

C. Cash Reserve Ratio

D. Budget Deficit

Answer: D. Budget Deficit

121. According to Keynes, during a liquidity trap, monetary policy is:

A. Highly effective

B. Ineffective

C. Counter-cyclical

D. Expansionary

Answer: B. Ineffective

122. The equation M = m × H refers to:

A. Money supply through multiplier

B. Classical price theory

C. GDP determination

D. Real income function

Answer: A. Money supply through multiplier

123. In the money multiplier formula, 'c' refers to:

A. Central bank reserves

B. Currency-deposit ratio

C. Credit ratio

D. Cost of money

Answer: B. Currency-deposit ratio

124. Milton Friedman is associated with which school of thought?

A. Classical

B. Keynesian

C. Monetarist

D. New Classical

Answer: C. Monetarist

125. Friedman proposed that money supply should grow at a:

A. Variable rate

B. Constant rate

C. Decreasing rate

D. Market-determined rate

Answer: B. Constant rate

126. According to monetarists, money supply is:

A. Endogenously determined

B. Controlled by banking behaviour

C. Based on fiscal policy

D. A fixed policy variable

Answer: D. A fixed policy variable

127. The money multiplier in monetarist theory is:

A. Highly unstable

B. Predictable and stable

C. Always increasing

D. Negligible

Answer: B. Predictable and stable

128. Which of the following is central to monetarist thinking?

A. Government spending

B. Demand for money

C. Control of money supply

D. Marginal propensity to consume

Answer: C. Control of money supply

129. Friedman's theory places emphasis on:

A. Demand management

B. Supply-side economics

C. Interest rate control

D. Quantity of money

Answer: D. Quantity of money

130. In monetarist view, velocity of money is:

A. Constant in long-run

B. Random

C. Affected by fiscal policy

D. Non-measurable

Answer: A. Constant in long-run

131. Which ratio is NOT a determinant of money multiplier?

A. Reserve ratio

B. Currency ratio

C. Excess reserve ratio

D. Investment ratio

Answer: D. Investment ratio

132. High-powered money includes:

A. Only currency with public

B. Time deposits

C. Currency + Reserves of banks

D. Net national product

Answer: C. Currency + Reserves of banks

133. Who coined the term 'High-powered Money'?

A. Keynes

B. Friedman

C. C.R. Rao

D. R.B. Hawtrey

Answer: B. Friedman

134. In Keynesian theory, money supply indirectly affects:

A. Investment through interest rate

B. Consumption

C. Real wages

D. Government spending

Answer: A. Investment through interest rate

135. The concept of 'neutrality of money' is central to which theory?

A. Keynesian

B. Monetarist

C. Classical

D. Post-Keynesian

Answer: C. Classical

136. Which theory assumes that banks passively create credit?

A. Monetarist

B. Classical

C. Keynesian

D. Endogenous Money Theory

Answer: A. Monetarist

137. What is the main instrument of monetary policy in monetarism?

A. Fiscal deficit

B. Interest rate

C. Wage cuts

D. Money supply control

Answer: D. Money supply control

138. Liquidity trap is a situation when:

A. Demand for money becomes infinite

B. Interest rate is very high

C. Monetary policy is most effective

D. People sell all bonds

Answer: A. Demand for money becomes infinite

139. Which theory suggests a monetary policy rule over discretion?

A. Monetarist

B. Keynesian

C. Classical

D. Structuralist

Answer: A. Monetarist

140. The velocity of money is considered highly stable in:

A. Post-Keynesian theory

B. Keynesian theory

C. Monetarist theory

D. Structuralist theory

Answer: C. Monetarist theory

****

UNIT- 2

POST KEYNESIAN DEMAND FOR MONEY

UNIT-2

Post–Keynesian Demand for Money – Demand for Money, Overview of Keynes's Liquidity Preference Approach, Concept of Neutrality of Money and Money Illusion. Patinkin's Real Balance Effect, Crisis in Keynesian Economics and the Revival of Monetarism – Theory of Demand – M. Friedman.

1. INTRODUCTION

The post-Keynesian theories of the demand for money mark a significant development beyond the classical and Keynesian formulations. While Keynes emphasized the speculative, transactions, and precautionary motives for holding money, post-Keynesian economists expanded and refined these ideas, incorporating more realistic assumptions and broadening the theoretical framework. Key contributors to this evolution include **Milton Friedman**, **James Tobin**, **William Baumol**, **Don Patinkin**, and others who sought to reconcile Keynesian insights with neoclassical economics and empirical observations.

Post-Keynesian economists view money not merely as a passive medium of exchange, but as an active determinant of economic activity and financial stability. They challenge the neutrality of money and emphasize the role of expectations, portfolio behaviour, and financial innovation.

2. KEYNESIAN THEORY OF LIQUIDITY PREFERENCE

The Keynesian Theory of Liquidity Preference is a cornerstone of modern monetary economics, introduced by John Maynard Keynes in his seminal work, ***The General Theory of Employment, Interest and Money*** **(1936).** Keynes challenged the classical view of interest rate determination, which was based on the real factors of savings and investment, and proposed that the rate of interest is a monetary phenomenon, determined by the demand for and supply of money.

According to Keynes, individuals prefer liquidity and are willing to forgo interest in order to retain money for transactional, precautionary, and speculative purposes.

Meaning of Liquidity Preference

Liquidity preference refers to the demand for money or the preference of individuals to hold their wealth in the form of liquid cash rather than in non-liquid assets such as bonds or other

interest-bearing securities. The degree of liquidity preference depends on various motives that Keynes categorized into three primary types:

2.1. Transaction Motive

The transaction motive arises out of the need to carry out **day-to-day transactions** in an economy. Both individuals and firms require money to bridge the gap between income receipts and expenditure outlays.

i. **Individuals and Households:**

Households receive their income periodically (usually monthly), but their spending occurs continuously throughout the month. To manage this mismatch, individuals hold a certain amount of money for transactions.

ii. **Businesses and Firms:**

Firms require working capital to purchase raw materials, pay wages, and cover operational costs before revenue is received from sales.

Determinants of Transaction Demand:

The transaction demand for money is a function of the level of income. That is:

$$Transaction\ Demand\ for\ Money = f(Y)$$

This implies that as income increases, the volume of transactions increases, leading to a greater need for money balances.

2.2. Precautionary Motive

The precautionary motive refers to the demand for money to meet unexpected or unforeseen expenditures such as medical emergencies, sudden job loss, or accidents.

Characteristics:

- This motive, like the transaction motive, is also **positively related to income**.
- Wealthier individuals or firms will tend to keep larger precautionary balances.

Thus, the precautionary demand for money can also be expressed as:

$$Precautionary\ Demand\ for\ Money = f(Y)$$

In both cases (transactions and precautionary motives), the demand for money is **interest-inelastic**, meaning that changes in the rate of interest do not significantly influence the amount of money demanded for these motives.

$$L_1 = f(Y)$$

Where:

L_1: Transaction and Precautionary demand for money

Y: Income level

2.3. Speculative Motive

The speculative motive is the most novel and significant contribution of Keynes's liquidity preference theory. It refers to the desire to hold money as an asset rather than invest it in bonds or securities.

Basis of the Speculative Motive:

People form expectations about future interest rates and, consequently, about future bond prices. There is an inverse relationship between bond prices and interest rates.

- If interest rates are low, people expect them to rise in the future, leading to a fall in bond prices. Hence, people avoid investing in bonds and prefer holding money.
- If interest rates are high, people expect them to fall, which means bond prices will rise, making bonds attractive.

Thus, the speculative demand for money is a ***function of the rate of interest***, denoted as:

$$L_2 = f(r)$$

Where:

L3: Speculative demand for money

r: Interest rate

Relationship:

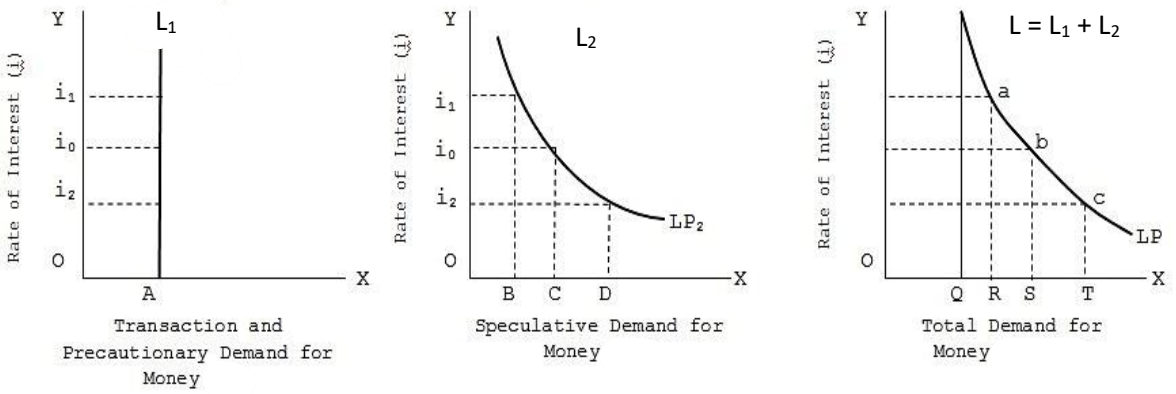
- The demand for money is **inversely related** to the interest rate.
- When interest rates are high, speculative demand is low.
- When interest rates are low, speculative demand is high.

2.4. Total Demand for Money

Keynes combined these three motives to derive the total demand for money:

$$\boldsymbol{L = L_1 + L_2}$$

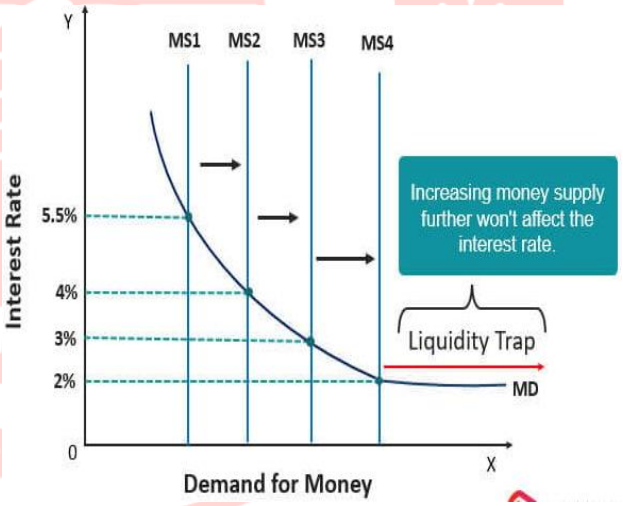
$$L = f(Y) + f(r)$$



2.5. Liquidity Trap

A liquidity trap is a situation where the rate of interest is so low that people expect it to rise in the future, making them reluctant to invest in bonds. They hold on to cash, causing monetary policy to become ineffective.

- At liquidity trap, the speculative demand for money is **infinitely elastic**.
- Further increases in the money supply do not lower the interest rate, rendering traditional monetary policy tools ineffective.



This concept is especially important during periods of depression or stagnation, when investment is unresponsive to interest rate changes.

2.6. Supply of Money

The supply of money in Keynesian theory is determined by the central bank and is considered **exogenous** (i.e., independent of the rate of interest).

- It is represented as a **vertical line** on the liquidity preference diagram.
- The equilibrium rate of interest is determined at the point where the liquidity preference (demand for money) equals the money supply.

2.7. Determination of the Rate of Interest

According to Keynes:

$$r = f(M, L)$$

Where:

M: Money supply

L: Liquidity preference (demand for money)

The rate of interest is determined by the **interaction of the supply and demand for money**.

Equilibrium:

- If the demand for money exceeds the supply, interest rates rise.
- If the supply of money exceeds demand, interest rates fall.
- Equilibrium is established when:

This equilibrium determines the market rate of interest.

Comparison with Classical Theory

Feature	Classical Theory	Keynesian Liquidity Preference
Money Demand	Function of income only	Function of income and interest
Role of Interest Rate	Determined by saving and investment	Determined by money demand and supply
Motives	Only transactions	Three motives
Policy Implications	Money is neutral	Money has real effects (especially under unemployment)

Limitations of Keynesian Demand Theory

Keynes's liquidity preference theory provided a powerful framework for analyzing money demand; however, it had certain limitations:

- The theory was primarily short-run in focus.
- It treated money and bonds as the only two asset classes.
- It did not fully incorporate the role of wealth or income distribution.
- It did not include the effect of interest on transactions demand for money.

These shortcomings laid the foundation for the post-Keynesian modifications and extensions

3. NEUTRALITY OF MONEY

The concept of neutrality of money is a classical idea which asserts that ***changes in the money supply only affect nominal variables (like price levels and wages) and not real variables (like output, employment, and real income)***. In other words, money is a veil, and it does not influence the real functioning of the economy.

Classical economists such as David Hume, J.B. Say, and later economists like Pigou and Robertson strongly supported this doctrine. They believed that the economy is self-adjusting, and the role of money is only to facilitate transactions without any impact on real economic variables.

3.1. Assumptions of Neutrality of Money

The neutrality hypothesis is based on the following classical assumptions:

- Full employment of resources.
- Perfect competition in markets.
- Flexible wages and prices.
- Absence of money illusion.
- Long-run perspective.
- Say's Law of Markets (supply creates its own demand).
- Quantity theory of money is valid.

These assumptions imply that the economy always operates at the full employment level, and money acts as a mere numeraire without influencing real sector decisions.

3.2. Classical View of Neutrality

According to classical economists like David Hume, J.S. Mill, and later monetarists like Milton Friedman, money is a "veil" that does not impact the real economy in the long run.

The *Quantity Theory of Money*, expressed in Fisher's Equation, is central to this idea:

$$MV = PY \Rightarrow \frac{M \cdot V}{Y} = P$$

Where:

M: Money supply

V: Velocity of money

P: Price level

Y: Real output

Assuming V and Y are constant:

$$\Delta M \Rightarrow \Delta P$$

Thus,

- Fiscal policy is the only viable tool for real economic change.
- Inflation is always a monetary phenomenon.
- Changes in money supply affects only the **price level**, not **real output**.
- Monetary policy is **ineffective** in influencing real variables in the long run.
- Government should avoid active interference via money supply changes.

3.3. Keynesian Critique of Neutrality of Money

Keynes rejected the neutrality of money, at least in the short run, on several grounds:

1. **Money Affects Interest Rates:** Increase in money supply → fall in interest rate → increase in investment → rise in output and employment.
2. **Underemployment Equilibrium:** The economy may remain below full employment without policy intervention.
3. **Rigidities and Lags:** Prices and wages are sticky, meaning monetary changes affect real demand.
4. **Expectations and Uncertainty:** People's expectations about the future can delay adjustments.

3.4. Modern Views (Monetarist and New Classical)

- Monetarists (Friedman): Money is non-neutral in the short run, but neutral in the long run.
- New Classical Economists (Lucas): Under rational expectations, money can be neutral even in the short run.

4. MONEY ILLUSION

The term "money illusion" was popularized by **Irving Fisher**, who noted that people make economic decisions based on **face value of money** rather than its real value.

Money illusion refers to the tendency of individuals to think of ***money in nominal terms rather than real terms***, i.e., they *fail to consider the effects of inflation on the purchasing power of money.*

A person under money illusion may feel richer if their nominal income increases, even though real income (adjusted for inflation) remains unchanged or has decreased.

The term "money illusion" was popularized by **Irving Fisher**, who noted that people make economic decisions based on **face value of money** rather than its real value.

Factors Leading to Money Illusion:

1. Lack of financial literacy
2. Psychological anchoring on nominal values
3. Complexity in adjusting to inflation
4. Contracts and negotiations made in nominal terms

4.1 Role in Economic Theory:

A. Classical Economics

Classical economists **assume the absence of money illusion**. People always think in real terms, and nominal changes are neutralized by price adjustments.

B. Keynesian Perspective

Keynes emphasized the importance of money illusion in explaining **wage rigidity**. Workers resist nominal wage cuts, even if real wages need to be reduced to restore full employment. This resistance leads to **involuntary unemployment**, and hence, **money illusion is a real-world phenomenon** with macroeconomic consequences.

4.2. Implications of Money Illusion

- Explains wage stickiness and unemployment.
- Justifies the non-neutrality of money in the short run.
- Validates the need for counter-cyclical monetary and fiscal policies.
- Highlights the role of expectations and perception in economics.

Neutrality of Money vs Money Illusion

Aspect	Neutrality of Money	Money Illusion
Focus	Long-run effects of money	Perception of monetary changes
View on Money	Passive, affects only prices	Active, due to psychological biases
Short-run Role	Limited or none	Important
Theoretical Root	Classical, Monetarist	Keynesian, Behavioural

5. PATINKIN'S REAL BALANCE EFFECT

Don Patinkin, in his seminal work *Money, Interest, and Prices* (1956), introduced the concept of the **Real Balance Effect** (also called the **Pigou Effect**) to resolve the inconsistencies between monetary theory and value theory in Keynesian economics.

Patinkin argued that money should enter directly into the utility function of individuals, as real balances (not nominal balances) influence their economic behaviour.

The Real Balance Effect refers to *the change in consumption and expenditure behaviour resulting from changes in real money balances*.

Real balances are defined as:

$$\frac{M}{P}$$

Where:

M: Nominal money supply

P: Price level

An increase in $\frac{M}{P}$ implies an increase in purchasing power, encouraging greater spending.

5.1. Patinkin's Argument

- Keynes treated money outside the real sector, which caused a dichotomy.
- Patinkin proposed that money must be integrated into the utility function because changes in real balances affect individual decisions.
- This bridges the gap between the monetary sector and the real goods market.

5.2. Relation to Keynesian Theory

In Keynesian economics:

- **Sticky wages and prices** can lead to underemployment equilibrium.

- ❖ Even if prices fall, demand may not rise due to pessimistic expectations (liquidity trap, etc.).

Patinkin refuted this by asserting:

- ➢ **Real balance effect restores equilibrium** even at low levels of income and employment.
- ➢ Thus, **Say's Law** (supply creates its own demand holds **in a modified sense**.

5.3. IS-LM Model with Real Balance Effect

1. A fall in price level → rise in $\frac{M}{P}$
2. LM curve shifts **rightward** due to increased real money supply
3. Interest rates fall → investment rises → national income rises

So, the real balance effect acts **like monetary expansion**.

5.4. Integration with General Equilibrium

Patinkin combined **Walrasian general equilibrium system** (real variables) With **monetary theory** (nominal variables). He showed that a **stable general equilibrium** requires consideration of real balances: Excess demand functions depend on $\frac{M}{P}$

This eliminates the **classical dichotomy**, which had separated the monetary and real sectors.

5.5. Pigou vs. Patinkin

While Patinkin developed the real balance effect formally, the basic idea had earlier been proposed by **A.C. Pigou**, known as the **Pigou Effect**:

Wealth Effect ⇒ Falling Prices ⇒ Increased Real Wealth ⇒ Higher Consumption

But Patinkin:

- ❖ Gave it a rigorous utility-theoretic foundation
- ❖ Used it to **resolve inconsistencies in Keynesian theory**

5.6. Criticism of Patinkin's Real Balance Effect

1. **Negligible Effect in Practice**:
   - ❖ The real balance effect may be too small to restore full employment.
   - ❖ Real balances are a small part of total wealth.
2. **Debt Deflation Risk**:

- ❖ Falling prices may **increase real burden of debt**, causing **decreased consumption** (Fisher effect).

3. **Liquidity Trap**:
   - ❖ Even with increased real balances, people may hoard money instead of spending.
4. **Wage and Price Rigidities**:
   - ❖ If prices and wages are sticky downward, the real balance effect cannot operate.
5. **Empirical Weakness**:
   - ❖ Difficult to observe strong behavioural reactions to real balance changes.

6. MONETARY POLICY IMPLICATIONS

Patinkin's Real Balance Effect has significant implications for monetary policy. It suggests that central banks can influence real economic activity, such as output and employment, in the short run by manipulating the money supply. A **monetary expansion** (an increase in the money supply) will increase real money balances, which, through the Real Balance Effect, can stimulate consumption, investment, and output.

Conversely, a **monetary contraction** (a decrease in the money supply) will reduce real money balances, leading to a reduction in aggregate demand and output. This can be a useful tool for managing inflation and maintaining economic stability, though the effect may diminish in the long run as expectations adjust to changes in the price level.

6.1. CRISIS IN KEYNESIAN ECONOMICS

By the late 1960s and 1970s, several contradictions and policy failures led to a crisis:

1. **Stagflation**: Simultaneous high inflation and unemployment in the 1970s (especially post-1973 oil shock) challenged the Phillips Curve trade-off.
2. **Ineffectiveness of Demand Management**: Fiscal expansion led to inflation without reducing unemployment. Monetary stimulus failed to boost real investment.
3. **Rational Expectations Critique**: Lucas and Sargent argued that people form expectations based on future policy and act rationally, neutralizing fiscal/monetary policy in the long run.
4. **Public Choice Theory**: Criticized Keynesianism for assuming governments act in society's interest, ignoring political motivations.

5. **Time Lag Problems**: Long lags in the implementation of fiscal/monetary policy caused procyclical effects, exacerbating cycles.

6.2. The Monetarist Revival: Milton Friedman

Led by **Milton Friedman**, Monetarism emerged as a powerful critique of Keynesianism. Its central tenets:

1. **Quantity Theory Reaffirmed**: Money matters in determining nominal GDP. Long-run relationship between money supply and inflation is strong and predictable.
2. **Monetary Policy Rule**: Advocated fixed growth rate of money supply (k-percent rule) instead of discretionary policy.
3. **Short-run Non-neutrality, Long-run Neutrality**: Changes in money affect output in the short run but only prices in the long run.
4. **Emphasis on Expectations**: People's behaviour depends on anticipated policy; only unanticipated changes in money affect output.
5. **Natural Rate of Unemployment Hypothesis**: There's a minimum sustainable unemployment rate; trying to reduce it leads to inflation without gains.

7. FRIEDMAN'S THEORY OF DEMAND FOR MONEY

Friedman's theory, often termed the Modern Quantity Theory of Money, was presented in his seminal paper **(1956)**: ***"The Quantity Theory of Money: A Restatement."***

Demand for money is a **function of permanent income and returns on alternative assets**, and money is treated like any other **asset** that yields utility.

Demand Function:

$$M_d = f(Y_p, r_b, r_e, r_p, \pi^e, u)$$

Where:

M_d: Demand for nominal money balances

Y_p: Permanent income

r_b: Interest rate on bonds

r_e: Return on equities

r_p: Return on physical assets (real estate, gold)

π^e: Expected inflation rate

u: Preferences, institutional variables

Simplified Version in Real Terms:

$$\frac{M_d}{P} = f\,(Y_p, r, \pi^e)$$

Where:

M_d/P: Real demand for money

r: Market interest rate

Yp: Permanent income (average expected long-term income)

Π^e: Expected inflation

Interpretation:

- Money is a part of wealth portfolio.
- Individuals allocate wealth between money and other assets based on relative returns.
- Permanent income is a better predictor of money demand than current income.

7.1. Comparison between Milton Friedman and Keynes Demand for money

Feature	Keynes	Friedman
Income	Current	Permanent
Assets considered	Money, Bonds	Money, Bonds, Equities, Goods
Motives	Transaction, Precautionary, Speculative	General wealth allocation
Rate sensitivity	High (speculative demand)	Low (interest is one of many factors)
Stability	Unstable demand	Stable demand function

7.2. Criticism of Monetarism

- **Instability of Money Demand in Modern Economies**: Financial innovations have destabilized money demand.
- **Velocity of Money Not Always Constant**: Especially during crises, velocity becomes erratic.
- **Oversimplified View of Expectations**: Underestimates role of uncertainty, credit channels, and behavioural factors.
- **Rigid Rules May Fail in Practice**: A fixed money growth rate may be inappropriate under changing macro conditions.

UNIT- 2

MULTIPLE CHOICE QUESTIONS (MCQs)

1. According to Keynes, the demand for money is primarily influenced by:

A. Price level

B. Investment

C. Income and interest rate

D. Government spending

Answer: C. Income and interest rate

2. The concept of liquidity preference was introduced by:

A. Alfred Marshall

B. Irving Fisher

C. J. Tobin

D. J.M. Keynes

Answer: D. J.M. Keynes

3. Liquidity preference refers to the:

A. Desire to hold money instead of bonds

B. Desire to invest in real assets

C. Preference for savings over consumption

D. Willingness to borrow money

Answer: A. Desire to hold money instead of bonds

4. The Keynesian theory of interest is based on:

A. Supply of savings and demand for investment

B. Demand for and supply of money

C. Real savings and investment

D. Rate of inflation

Answer: B. Demand for and supply of money

5. Which of the following is ***not*** one of Keynes's motives for holding money?

A. Transactions motive

B. Precautionary motive

C. Speculative motive

D. Financial motive

Answer: D. Financial motive

6. The transaction demand for money depends on:

A. Level of income

B. Wealth

C. Interest rate

D. Price expectations

Answer: A. Level of income

7. The speculative demand for money is a function of:

A. Income

B. Employment

C. Interest rate

D. Consumption

Answer: C. Interest rate

8. The precautionary motive for holding money is mainly due to:

A. Expected inflation

B. Uncertainty about future needs

C. Interest rate changes

D. Money illusion

Answer: B. Uncertainty about future needs

9. In the Keynesian framework, the total demand for money is given by:

A. $L = L_1(Y) + L_2(r)$

B. $M = P \times T$

C. $Y = C + I + G$

D. $MV = PT$

Answer: A. $L = L_1(Y) + L_2(r)$

10. Which motive for holding money is sensitive to changes in the interest rate?

A. Speculative

B. Precautionary

C. Transactions

D. Real balance

Answer: A. Speculative

11. The speculative demand curve for money is:

A. Downward sloping

B. Vertical

C. Positively sloped

D. U-shaped

Answer: A. Downward sloping

12. At a very low rate of interest, the speculative demand for money becomes:

A. Inelastic

B. Vertical

C. Perfectly elastic

D. Negatively sloped

Answer: C. Perfectly elastic

13. The situation where monetary policy becomes ineffective due to high liquidity preference is called:

A. Recession

B. Depression

C. Inflation

D. Liquidity trap

Answer: D. Liquidity trap

14. The supply of money in Keynes's theory is:

A. Sloping curve

B. Elastic

C. Horizontal

D. Fixed and vertical

Answer: D. Fixed and vertical

15. The rate of interest is determined at the point where:

A. Investment equals savings

B. Demand equals supply of goods

C. Liquidity preference equals money supply

D. Consumption equals income

Answer: C. Liquidity preference equals money supply

16. The liquidity trap is depicted by the:

A. Vertical demand curve

B. Horizontal portion of speculative demand curve

C. Upward-sloping supply curve

D. Backward bending investment curve

Answer: B. Horizontal portion of speculative demand curve

17. Which of the following is not a feature of speculative demand for money?

A. Depends on rate of interest

B. Sensitive to bond prices

C. Helps determine interest rate

D. Related to income directly

Answer: D. Related to income directly

18. In Keynes's theory, interest is considered as a reward for:

A. Investment

B. Risk

C. Sacrifice of liquidity

D. Saving

Answer: C. Sacrifice of liquidity

19. The curve representing total demand for money in Keynes's model shifts due to changes in:

A. Money supply

B. Output and income

C. Bond supply

D. Taxes

Answer: B. Output and income

20. According to Keynes, demand for money is more elastic when:

A. Prices are falling

B. Income increases

C. Interest rate is low

D. Government increases spending

Answer: C. Interest rate is low

21. In liquidity preference theory, a vertical money supply curve implies:

A. Money supply is exogenous

B. Money supply is interest-elastic

C. Money supply increases with GDP

D. Central bank does not control money

Answer: A. Money supply is exogenous

22. Which of the following motives explains demand for money due to uncertainty of the future?

A. Speculative

B. Transactions

C. Financial

D. Precautionary

Answer: D. Precautionary

23. Which of the following is a limitation of Keynes's liquidity preference theory?

A. Ignores bond market

B. Assumes constant price level

C. Neglects role of savings

D. Overemphasizes fiscal policy

Answer: B. Assumes constant price level

24. In the liquidity trap situation, increase in money supply leads to:

A. Decrease in inflation

B. Increase in interest rate

C. No change in interest rate

D. Increase in saving

Answer: C. No change in interest rate

25. Liquidity preference theory is a:

A. Keynesian theory

B. Modern theory

C. Classical theory

D. Supply-side theory

Answer: A. Keynesian theory

26. When interest rates are expected to rise, speculative demand for money will:

A. Fall

B. Rise

C. Stay constant

D. Disappear

Answer: A. Fall

27. When people expect bond prices to fall, they will:

A. Buy more bonds

B. Hold less money

C. Sell their cash

D. Prefer money to bonds

Answer: D. Prefer money to bonds

28. In Keynes's liquidity preference theory, the rate of interest is a purely:

A. Real phenomenon

B. Fiscal variable

C. Political variable

D. Monetary phenomenon

Answer: D. Monetary phenomenon

29. According to Keynes, transaction and precautionary demands are:

A. Independent of interest rate

B. Determined by inflation

C. Influenced by bond prices

D. Controlled by government policy

Answer: A. Independent of interest rate

30. The speculative motive is associated with:

A. Government taxation

B. Future uncertainty in employment

C. Expectations about changes in interest rate

D. Export-import imbalance

Answer: C. Expectations about changes in interest rate

31. Liquidity preference is inversely related to:

A. Consumption

B. Investment

C. Income

D. Interest rate

Answer: D. Interest rate

32. What role does money supply play in determining interest rate under Keynes's theory?

A. Passive

B. Active

C. Negative

D. Elastic

Answer: A. Passive

33. In the General Theory, Keynes rejects which classical assumption?

A. Law of diminishing returns

B. Law of comparative advantage

C. Full employment

D. Quantity theory of money

Answer: C. Full employment

34. When speculative demand increases, interest rate:

A. Rises

B. Falls

C. Remains constant

D. Becomes volatile

Answer: B. Falls

35. The liquidity preference theory was originally published in Keynes's:

A. A Treatise on Money

B. Economic Consequences of Peace

C. Tract on Monetary Reform

D. The General Theory of Employment, Interest and Money

Answer: D. The General Theory of Employment, Interest and Money

36. The equation representing Keynes's total demand for money is:

A. $M = L(Y)$

B. $L = L_1(Y) + L_2(r)$

C. $L = M/P$

D. $MV = PY$

Answer: B. $L = L_1(Y) + L_2(r)$

37. In Keynes's model, $L_1(Y)$ represents:

A. Speculative demand

B. Money supply

C. Liquidity trap

D. Transactions and precautionary demand

Answer: D. Transactions and precautionary demand

38. According to Keynes, the speculative demand for money is:

A. Inversely related to interest rate

B. Independent of bond prices

C. Directly related to income

D. Constant over time

Answer: A. Inversely related to interest rate

39. The LM curve in IS-LM analysis is derived from:

A. Investment function

B. Liquidity preference and money supply

C. Aggregate demand

D. Supply of labour

Answer: B. Liquidity preference and money supply

40. The IS curve represents equilibrium in the:

A. Goods market

B. Bond market

C. Money market

D. Labour market

Answer: A. Goods market

41. In the General Theory, Keynes attacked the classical assumption of:

A. Monetary neutrality

B. Rational expectations

C. Full employment

D. Constant returns

Answer: C. Full employment

42. Keynes emphasized the role of:

A. Automatic market correction

B. Government intervention

C. Flexible prices

D. Say's Law

Answer: B. Government intervention

43. Which of the following is the full title of Keynes's famous book?

A. The General Theory of Employment, Interest and Money

B. The General Theory of Money and Prices

C. The Theory of Employment and Interest

D. Treatise on Monetary Policy

Answer: A. The General Theory of Employment, Interest and Money

44. Keynes's critique of classical theory was primarily focused on:

A. Consumption behaviour

B. Rate of interest

C. Utility maximization

D. Employment and output determination

Answer: D. Employment and output determination

45. Keynes rejected the idea that:

A. Inflation is caused by money supply

B. Savings always equals investment through interest rate

C. Fiscal policy is ineffective

D. Money is neutral

Answer: B. Savings always equals investment through interest rate

46. In Keynesian economics, what determines the equilibrium level of income?

A. Interest rate

B. Savings

C. Effective demand

D. Government borrowing

Answer: C. Effective demand

47. According to Keynes, the speculative demand for money L_2 is:

A. Positively related to r

B. Constant

C. Unrelated to r

D. Negatively related to r

Answer: D. Negatively related to r

48. If interest rate falls to the minimum threshold in liquidity trap, the function becomes:

A. Perfectly elastic

B. Backward bending

C. Upward sloping

D. Perfectly inelastic

Answer: A. Perfectly elastic

49. Keynes's liquidity trap is illustrated by which part of the speculative demand curve?

A. Middle portion

B. Upper vertical portion

C. Whole curve

D. Lower horizontal portion

Answer: D. Lower horizontal portion

50. *The General Theory of Employment, Interest and Money* was published in:

A. 1913

B. 1929

C. 1944

D. 1936

Answer: D. 1936

51. According to Keynes, the most important short-term determinant of income and employment is:

A. Consumption

B. Savings

C. Wage rate Investment

D. Investment

Answer: D. Investment

52. Keynes rejected the classical assumption of:

A. Flexible prices

B. Wage rigidity

C. Full employment

D. Unemployment

Answer: C. Full employment

53. In Keynes's theory, effective demand determines:

A. Investment only

B. Income and output

C. Money supply

D. Interest rate only

Answer: B. Income and output

54. The main innovation in Keynes's theory was to treat money as:

A. A determinant of interest

B. A purely real variable

C. A neutral factor

D. A non-economic variable

Answer: A. A determinant of interest

55. According to Keynes, what prevents the economy from reaching full employment?

A. Deficiency of effective demand

B. Excess savings

C. Wage flexibility

D. Government expenditure

Answer: A. Deficiency of effective demand

56. Which of the following concepts is *not* emphasized in Keynes's General Theory?

A. Marginal efficiency of capital

B. Quantity theory of money

C. Liquidity preference

D. Effective demand

Answer: B. Quantity theory of money

57. According to Keynes, speculative balances are held primarily due to:

A. Future consumption

B. Transactions

C. Expected changes in interest rates

D. Government borrowing

Answer: C. Expected changes in interest rates

58. In the liquidity preference theory, interest is determined by the:

A. Marginal propensity to consume

B. Wage level

C. Investment function

D. Intersection of money demand and supply

Answer: D. Intersection of money demand and supply

59. Which of the following best defines the concept of "neutrality of money"?

A. Money supply affects both real and nominal variables

B. Money supply affects only nominal variables

C. Money supply affects only real variables

D. Money has no effect on the economy

Answer: B. Money supply affects only nominal variables

60. According to the neutrality of money doctrine, an increase in the money supply leads to:

A. An increase in real output

B. A decrease in real output

C. A proportionate increase in the price level

D. An increase in unemployment

Answer: C. A proportionate increase in the price level

61. Which economist is most closely associated with the classical theory of money's neutrality?

A. John Maynard Keynes

B. Irving Fisher

C. Milton Friedman

D. David Hume

Answer: D. David Hume

62. Which of the following is an assumption of the classical neutrality of money theory?

A. Wage and price rigidity

B. Full employment of resources

C. Imperfect competition

D. All of the above

Answer: B. Full employment of resources

63. In the context of neutrality of money, the quantity theory of money is given by the equation:

A. MV = PT

B. Y = C + I + G

C. P = MV

D. M = V * P

Answer: A. MV = PT

64. According to the quantity theory of money, if the money supply increases and velocity of money and output remain constant, the price level will:

A. Increase

B. Decrease

C. Remain unchanged

D. Fluctuate

Answer: A. Increase

65. Which of the following would not be considered a real variable in the neutrality of money context?

A. Output

B. Employment

C. Real Wages

D. Price levels

Answer: D. Price levels

66. Monetary policy is largely ineffective in influencing real economic variables in the long run due to:

A. Money illusion

B. Neutrality of money

C. Sticky wages

D. Keynesian liquidity preference

Answer: B. Neutrality of money

67. Keynesian economics challenges the neutrality of money by asserting that changes in money supply can influence:

A. Real output and employment in the short run

B. Only nominal wages

C. The long-run price level

D. None of the above

Answer: A. Real output and employment in the short run

68. Which of the following economists denied the short-run neutrality of money?

A. Milton Friedman

B. John Maynard Keynes

C. David Hume

D. Robert Lucas

Answer: B. John Maynard Keynes

69. The monetarist view, as advocated by Milton Friedman, suggests that in the short run, an increase in the money supply:

A. Affects only prices

B. Affects output and employment in the long run

C. Affects both prices and output

D. Affects real wages

Answer: C. Affects both prices and output

70. Which of the following best describes money illusion?

A. People fail to recognize the effect of inflation on real income

B. People adjust wages immediately to changes in inflation

C. People only consider real variables when making decisions

D. People think money is neutral in the short run

Answer: A. People fail to recognize the effect of inflation on real income

71. Money illusion leads individuals to make economic decisions based on:

A. Real income

B. Interest rates

C. Nominal income

D. Output levels

Answer: C. Nominal income

72. Which of the following is a consequence of money illusion?

A. Increased saving

B. Decreased investment

C. Wage stickiness and unemployment

D. Perfect price flexibility

Answer: C. Wage stickiness and unemployment

73. Which of the following economists is most associated with the development of the idea of money illusion?

A. Irving Fisher

B. John Maynard Keynes

C. Milton Friedman

D. David Hume

Answer: A. Irving Fisher

74. The classical economists assumed that individuals are:

A. Affected by money illusion

B. Always aware of real income changes

C. In a state of uncertainty about the future

D. Always uncertain about inflation

Answer: B. Always aware of real income changes

75. Which of the following is an implication of money illusion for monetary policy?

A. It makes monetary policy more effective

B. It makes fiscal policy irrelevant

C. It can lead to misperceptions about real income during inflationary periods

D. It causes monetary policy to have no effect on the economy

Answer: C. It can lead to misperceptions about real income during inflationary periods

76. The theory of neutrality of money assumes that:

A. Money has no effect on real output

B. Money has an impact on output in the short run

C. Money affects only nominal variables

D. Both A and C

Answer: D. Both A and C

77. Money illusion can cause economic distortions because:

A. People act on perceived rather than real income changes

B. Real wages adjust quickly to inflation

C. Nominal wages remain flexible

D. Monetary policy has no effect on output

Answer: A. People act on perceived rather than real income changes

78. Which of the following is true about money in the context of the neutrality of money?

A. Money affects real variables in the long run

B. Money has an impact on output in the short run

C. Money affects only nominal variables in the long run

D. Money causes inflationary pressures without affecting real output

Answer: C. Money affects only nominal variables in the long run

79. Monetary policy under the neutrality of money hypothesis would primarily focus on:

A. Controlling inflation

B. Influencing real output

C. Increasing employment

D. None of the above

Answer: A. Controlling inflation

80. Which of the following does not support the neutrality of money in the long run?

A. Full employment of resources

B. Flexible wages and prices

C. Persistent inflation

D. Perfectly competitive markets

Answer: C. Persistent inflation

81. Money illusion leads people to:

A. Misunderstand the real value of their income

B. Fully adjust their income to inflation

C. Irrelevant fiscal policy

D. Reduce their consumption during inflation

Answer: A. Misunderstand the real value of their income

82. Money illusion is particularly relevant in which phase of the business cycle?

A. During periods of high employment

B. During inflationary periods

C. During deflationary periods

D. During economic recession

Answer: B. During inflationary periods

83. Monetarists believe that changes in the money supply:

A. Lead to changes in real variables in the short run

B. Have no impact on the price level

C. Affect output only in the long run

D. Lead to proportional changes in price levels in the long run

Answer: D. Lead to proportional changes in price levels in the long run

84. Which of the following is a key assumption in the neutrality of money theory?

A. Price levels adjust instantly to changes in the money supply

B. Monetary policy affects real output in the long run

C. Real output is permanently influenced by changes in the money supply

D. None of the above

Answer: A. Price levels adjust instantly to changes in the money supply

85. Which of the following would not be affected by money illusion?

A. A rise in the general price level

B. Nominal wage increases

C. Real income decreases

D. The velocity of money

Answer: D. The velocity of money

86. What does the Real Balance Effect explain?

A. The relationship between inflation and money supply

B. The relationship between money and capital markets

C. The effect of interest rates on investment

D. The impact of changes in real money balances on aggregate demand

Answer: D. The impact of changes in real money balances on aggregate demand

87. Which of the following represents the real money balance?

A. $M \times P$

B. M/P

C. P/M

D. $M + P$

Answer: B. M/P

88. An increase in real money balances leads to a:

A. Decrease in consumption and investment

B. Decrease in aggregate demand

C. Increase in consumption and investment

D. No change in aggregate demand

Answer: C. Increase in consumption and investment

89. According to the Real Balance Effect, an increase in real money balances causes:

A. A fall in output

B. A rise in interest rates

C. A decrease in price levels

D. An increase in aggregate demand

Answer: D. An increase in aggregate demand

90. Patinkin's Real Balance Effect suggests that changes in real money balances, affect which economic variable?

A. Interest rates

B. Aggregate demand

C. Aggregate supply

D. Government spending

Answer: B. Aggregate demand

91. In the context of the Real Balance Effect, an increase in the nominal money supply, M, causes:

A. An increase in real money balances

B. A decrease in real money balances

C. A decrease in aggregate demand

D. No change in aggregate demand

Answer: A. An increase in real money balances

92. The effect of changes in real money balances on aggregate demand is most closely related to which curve in the IS-LM model?

A. IS curve

B. LM curve

C. Phillips curve

D. Aggregate supply curve

Answer: B. LM curve

93. What happens when the real money balance increases in the money market?

A. The LM curve shifts to the right

B. The interest rate rises

C. The IS curve shifts to the left

D. Output decreases

Answer: A. The LM curve shifts to the right

94. In Patinkin's model, the Real Balance Effect suggests that the change in money supply will:

A. Affect only the nominal economy

B. Reduce inflation

C. Not influence the real economy

D. Lead to higher output and employment in the short run

Answer: D. Lead to higher output and employment in the short run

95. What happens when real money balances increase?

A. A decrease in real consumption

B. A decrease in investment

C. An increase in both consumption and investment

D. No change in aggregate demand

Answer: C. An increase in both consumption and investment

96. The Real Balance Effect is significant in which period?

A. Long run

B. Short run

C. Both short and long run

D. It is insignificant in both periods

Answer: B. Short run

97. Which of the following best describes the relationship between real money balances and output, according to Patinkin?

A. Higher real money balances reduce output

B. Higher real money balances lead to higher output

C. Real money balances have no effect on output

D. Higher real money balances decrease consumption only

Answer: B. Higher real money balances lead to higher output

98. Which of the following is NOT a factor influencing the demand for money in Patinkin's model?

A. Interest rate

B. Real income

C. Government spending

D. Real money supply

Answer: C. Government spending

99. Which economic phenomenon most challenged the validity of the Keynesian model during the 1970s?

A. Deflation

B. Stagflation

C. Hyper employment

D. Balanced budgets

Answer: B. Stagflation

100. Who is considered the main proponent of Monetarism?

A. John Maynard Keynes

B. J.R. Hicks

C. Milton Friedman

D. Paul Samuelson

Answer: C. Milton Friedman

101. The equation of exchange used in Monetarism is:

A. $MV = PY$

B. $C = a + bY$

C. $I = S$

D. $Y = C + I + G + NX$

Answer: A. MV = PY

102. According to Friedman, inflation is caused by:

A. High taxes

B. Demand shocks

C. Budget surplus

D. Excessive growth in money supply

Answer: D. Excessive growth in money supply

103. Which of the following is not part of Friedman's demand for money function?

A. Real income

B. Interest rate

C. Fiscal deficit

D. Expected price level

Answer: C. Fiscal deficit

104. The crisis in Keynesian economics began primarily due to its failure to explain:

A. Low investment rates

B. Constant money velocity

C. Gold standard collapse

D. Rising unemployment with inflation

Answer: D. Rising unemployment with inflation

105. Monetarists believe that the velocity of money is:

A. Unpredictable

B. Constant in the short run

C. Highly volatile

D. Irrelevant

Answer: B. Constant in the short run

106. What does the "V" stand for in the Quantity Theory of Money?

A. Velocity of money

B. Volume of transactions

C. Value of money

D. Variable price

Answer: A. Velocity of money

107. Which function represents Friedman's view of money demand?

A. M = kPY

B. Md = f(Y, i, Pe)

C. Md = L1(Y) + L2(i)

D. M = 1/v × PQ

Answer: B. Md = f(Y, i, Pe)

108. Which concept introduced by Friedman helps explain long-term inflation expectations?

A. Adaptive expectations Rational expectations

B. Marginal propensity to save

C. Rational expectations

D. Full employment

Answer: A. Adaptive expectations

109. In the monetarist view, what is the primary cause of inflation?

A. Wage increases

B. High taxation

C. Increase in government spending

D. Rapid growth in money supply

Answer: D. Rapid growth in money supply

110. Friedman's demand for money is more influenced by:

A. Autonomous investment

B. Fiscal policy

C. Permanent income

D. Government borrowing

Answer: C. Permanent income

111. What does Monetarism emphasize more than Keynesianism?

A. Interest rates

B. Fiscal policy

C. Consumer behaviour

D. Money supply

Answer: D. Money supply

112. The long-run Phillips Curve according to Friedman is:

A. Downward sloping

B. Vertical

C. Horizontal

D. U-shaped

Answer: B. Vertical

113. What is the term for unemployment level consistent with stable inflation in Friedman's model?

A. Cyclical unemployment

B. Involuntary unemployment

C. Natural rate of unemployment

D. Frictional unemployment

Answer: C. Natural rate of unemployment

114. The failure of Keynesianism led to greater focus on:

A. Supply-side economics

B. Exchange rate control

C. Demand management

D. Direct tax policies

Answer: A. Supply-side economics

115. Which policy approach did Friedman advocate?

A. Monetary targeting

B. Discretionary monetary policy

C. Progressive taxation

D. Price controls

Answer: A. Monetary targeting

116. In Friedman's theory, inflation is always and everywhere a:

A. Real wage issue

B. Demand-side problem

C. Fiscal imbalance

D. Monetary phenomenon

Answer: D. Monetary phenomenon

117. Which of the following policies did Monetarists oppose?

A. Interest rate adjustments

B. Fiscal deficit reduction

C. Expansionary fiscal policy

D. Monetary targeting

Answer: C. Expansionary fiscal policy

118. According to Friedman, the Phillips Curve in the long run is:

A. Upward sloping

B. Downward sloping

C. Flat

D. Vertical

Answer: D. Vertical

119. Monetarism regards fiscal policy as:

A. Secondary to monetary policy

B. Harmful for inflation

C. Effective in all conditions

D. Superior to monetary tools

Answer: A. Secondary to monetary policy

120. According to Friedman, monetary policy should be:

A. Based on political cycles

B. Implemented by fiscal authorities

C. Rule-based and predictable

D. Discretionary and flexible

Answer: C. Rule-based and predictable

121. Friedman's demand for money approach is also known as:

A. Keynesian liquidity preference

B. Wealth theory of money demand

C. Cambridge cash-balance

D. Rational expectation hypothesis

Answer: B. Wealth theory of money demand

122. Which year saw the rise of stagflation challenging Keynesian economics?

A. 1930

B. 1945

C. 1970

D. 1991

Answer: C. 1970

123. Monetarists believe that controlling which of the following can ensure price stability?

A. Public debt

B. Budget deficits

C. Tax rates

D. Money supply

Answer: D. Money supply

124. In Friedman's view, the most stable economic variable is:

A. Government spending

B. Money demand

C. Tax revenue

D. Investment

Answer: B. Money demand

125. Which of these is a major difference between Keynesian and Monetarist theories?

A. Emphasis on money supply

B. Role of taxation

C. Interest elasticity of investment

D. Presence of liquidity traps

Answer: A. Emphasis on money supply

126. Adaptive expectations mean:

A. Future is unrelated to past data

B. Expectations adjust to past errors

C. Government adjusts future budgets

D. Money velocity is variable

Answer: B. Expectations adjust to past errors

127. Friedman's theory led central banks to focus more on:

A. Fiscal reforms

B. Public employment

C. Trade deficits

D. Monetary aggregates

Answer: D. Monetary aggregates

128. According to Friedman, which income concept is relevant for money demand?

A. Gross National Product

B. Permanent income

C. Disposable income

D. Personal income

Answer: B. Permanent income

129. Friedman's Permanent Income Hypothesis suggests that:

A. Consumption depends on current income only

B. People spend a fixed proportion of income

C. People base consumption on expected long-term income

D. Savings remain constant over time

Answer: C. People base consumption on expected long-term income

130. Which monetary aggregate did Friedman emphasize for policy formulation?

A. M0

B. M1

C. M2

D. M3

Answer: B. M1

131. The central proposition of Monetarism is:

A. Government spending drives growth

B. Money is neutral even in the short run

C. Investment leads to savings

D. Control of money supply determines nominal GDP

Answer: D. Control of money supply determines nominal GDP

132. According to Monetarists, fiscal policy is:

A. The most effective tool

B. Completely ineffective

C. Less effective than monetary policy

D. Best for short-run stabilization only

Answer: C. Less effective than monetary policy

133. Friedman's critique of Keynesianism is most evident in which work?

A. A Monetary History of the United States

B. The General Theory of Employment, Interest and Money

C. A Tract on Monetary Reform

D. Principles of Economics

Answer: A. A Monetary History of the United States

134. What did Monetarists advocate to deal with inflation?

A. Direct wage and price controls

B. Reduced interest rates

C. Increase in public spending

D. Gradual reduction in money supply growth

Answer: D. Gradual reduction in money supply growth

135. Which of the following policies would Milton Friedman most likely oppose?

A. Long-term money supply targeting

B. Government stimulus during recessions

C. Balanced monetary policy

D. Rule-based policy decisions

Answer: B. Government stimulus during recessions

****

UNIT- 3

DEVELOPMENT IN THE THEORY OF DEMAND FOR MONEY

UNIT-3

Development in the Theory of Demand for Money – Approaches of Baumol and Tobin, Turvey Approach, Liquidity Approach – Rediff Committee Report and Gurley–Shaw Thesis.

INTRODUCTION

The classical and Keynesian theories of the demand for money emphasized the transactions, precautionary, and speculative motives. However, post-Keynesian economists felt the need to refine and develop these theories further to incorporate realistic behaviour concerning cash holding and asset management. Significant contributions were made by William Baumol and James Tobin, who introduced portfolio theories of the demand for money, and by Ralph Turvey, who introduced a production function approach.

These developments gave a more dynamic and microeconomic foundation to the theory of money demand, integrating it with concepts of cost minimization and risk management.

Post-Keynesian Theoretical Approaches

1. Baumol's Inventory Approach to Transactions Demand for Money:

William Baumol (1952) applied the inventory management principle to the theory of transactions demand for money. He argued that money could be treated like an inventory, which individuals and firms manage to minimize the cost of holding cash.

According to Baumol, people face a trade-off between two types of costs:

- The **opportunity cost** of holding cash (forgone interest).
- The **transaction cost** of converting bonds or other interest-bearing assets into cash.

Hence, individuals will optimize their cash balance to minimize the total cost.

Assumptions:

1. Income is received periodically (monthly, quarterly, etc.).
2. Money is spent uniformly over time.
3. There is a fixed cost associated with each conversion of interest-bearing assets into money.

4. Individuals aim to minimize total cost: opportunity cost + transaction cost.
5. Bonds can be sold to obtain cash but incur a transaction cost.

Key Variables:

- Y: Total income or transactions during the period
- b: Transaction cost per withdrawal (e.g., brokerage cost or time cost)
- r: Interest rate (opportunity cost of holding money)
- C: Optimal amount of cash to hold

$$C = \sqrt{\frac{2bY}{r}}$$

- Transactions demand for money (C) is positively related to total expenditure (Y) and negatively related to interest rate (r).
- Contradicts Keynes's claim that transactions demand is interest-inelastic.

2. Tobin's Portfolio Balance Model of Speculative Demand for Money

James Tobin (1958) extended Keynes's speculative demand by introducing **risk** and **return** into individuals' decision-making about holding money versus bonds.

He viewed money and bonds as alternative assets:

- Money is safe but earns no interest.
- Bonds earn interest but carry price risk (due to fluctuating bond prices).

Individuals are risk-averse and hence will diversify their portfolio between risky bonds and safe money to maximize expected returns for a given level of risk.

Tobin formalized this into a portfolio optimization problem.

Assumptions:

1. Individuals choose a mix of money and bonds.
2. Bonds have uncertain returns due to price fluctuations.
3. Individuals are **risk-averse** and aim to maximize expected utility.

Conclusion:

- Money demand falls as interest rate increases.
- The degree of risk aversion and bond return variability influence portfolio allocation.

- Unlike Keynes, Tobin allows people to hold both money and bonds, depending on preferences and market uncertainty.

Tobin's theory established that demand for money depends on the risk-return trade-off and emphasized the importance of diversification, transforming the understanding of speculative balances.

Table-1: Key Differences from Keynesian Theory

Feature	Keynes	Baumol	Tobin
Money Held For	Transactions, Precaution, Speculation	Transactions only	Speculative motives
Interest Sensitivity	Only speculative demand is interest-elastic	Transactions demand is interest-elastic	Speculative demand varies with risk and return
Assets Considered	Money and Bonds	Money and Bonds	Money and Bonds (Portfolio approach)
Innovations	Liquidity trap	Inventory theory	Risk-return analysis

3. Turvey Approach

R.C. Turvey introduced an extension to the speculative demand for money, emphasizing uncertainty and expectations about future interest rate movements.

Turvey argued that individuals form expectations based on the distribution of possible interest rates, not just a fixed rate. Hence, money demand reflects not just a binary choice between holding cash or bonds, but a probabilistic assessment of future market conditions.

He also introduced a "loss function" to describe the cost of being wrong in choosing to hold bonds when interest rates rise (causing capital loss).

This made the speculative motive more continuous than Keynes's step-function framework, offering a smoother, more realistic explanation of behaviour under uncertainty.

Comparative Evaluation

Baumol, Tobin, and Turvey introduced dynamic and microeconomic elements into the theory of demand for money:

Each approach improved upon the traditional Keynesian analysis, providing deeper insights into real-world behaviour concerning money demand.

Table-2: Basic Comparison of Baumol, Tobin, and Turvey Models

Aspect	Baumol's Approach	Tobin's Approach	Turvey's Approach
Main Focus	Transactions demand for money	Portfolio choice between money & bonds	Cost minimization in transaction services
Key Trade-Off	Opportunity cost vs transaction cost	Return vs risk	Cost of holding cash vs using banking services
Methodology	Inventory management principle	Risk-return optimization	Production function analogy
Assumptions	Steady expenditure flow, fixed income, brokerage cost	Risk aversion, bond price volatility	Cash and banking services as inputs for transactions
Impact of Interest Rate	Negative on money demand	Negative on money demand	Negative on cash holdings

Table-3: Key Differences in Treatment of Risk and Return

Feature	Baumol Model	Tobin Model	Turvey Model
Treatment of Risk	Ignored	Explicitly incorporated	Not explicitly treated
Return from Alternative Assets	Considered via opportunity cost (interest)	Maximization objective	Considered in cost terms
Portfolio Diversification	No	Yes	No

Table-4: Advantages and Limitations of Baumol, Tobin, and Turvey Models

Model	Advantages	Limitations
Baumol's Approach	Introduced cost optimization in money demand; simple and intuitive model	Assumes certainty of income and expenditure; ignores risk factors
Tobin's Approach	Incorporates risk and return; explains diversification between assets	Assumes normal distribution of returns; complex for practical estimation
Turvey's Approach	Applies production theory concepts; highlights substitution possibilities	Over-simplified treatment; does not explicitly incorporate risk

4. Introduction to Liquidity Approach

The liquidity approach to monetary theory emphasizes the role of *all assets* that possess liquidity characteristics, rather than limiting focus solely to money in the narrow sense. It considers not only currency and demand deposits but also savings accounts, time deposits, treasury bills, government bonds, and even shares under certain conditions, as part of the spectrum influencing liquidity and the economy.

The liquidity approach broadens the traditional money supply concept by analyzing how financial intermediaries and near-money assets affect aggregate demand and economic stability.

4.1 Liquidity Approach

This approach views **money as one of several liquid assets**, with liquidity being a matter of degree, not category.

Main Features

- Money is not the only liquid asset; near-money assets like treasury bills, savings deposits, and commercial paper also provide liquidity.
- The demand for money is integrated into a broader framework of asset liquidity.
- This approach paved the way for including credit market instruments in money demand functions.

4.2 Liquidity Preference and Asset Holdings

Liquidity preference, as theorized earlier by Keynes, is expanded under the liquidity approach. Individuals allocate their wealth among various assets based on:

- Expected returns
- Risk
- Liquidity
- Maturity periods

Thus, money is only one of several liquid asset choices.

Equation Representing Asset Allocation:

$$W=M+B+N$$

Where:

W = Total Wealth

M = Holdings in money

B = Holdings in bonds

N = Holdings in near-money assets

5. Rediff Committee Report (1969)

The Reserve Bank of India appointed the Rediff Committee to examine the working of monetary and credit policy mechanisms in India, especially focusing on the role of liquidity in influencing credit expansion and control.

5.1. Key Recommendations

- **Liquidity Measures Over Money Stock:** Monetary policy should monitor *overall liquidity* instead of narrowly focusing on M1 (currency + demand deposits).
- **Wider Definition of Liquidity:** Liquidity should include savings deposits, government securities, time deposits, treasury bills, and certain commercial papers.
- **Control Instruments:** Suggested using broader instruments like selective credit controls and open market operations across a range of assets.
- **Banking Sector's Role:** Emphasized the evolving role of banks and non-bank financial intermediaries in credit creation and liquidity dispersion.

The Reddiff Committee Report introduced the idea that the demand for money is influenced by the liquidity of the financial system. The demand for money in this context can be written as:

$$M_d = f\ (L\ , i)$$

Where:

M_d = Demand for money

L = Liquidity in the financial system (includes credit availability and other liquid assets)

i = Interest rate on alternative assets

This formula suggests that the demand for money is not only influenced by income and interest rates but also by the overall liquidity of the financial system. A more liquid financial system reduces the need to hold money, as individuals can easily access credit or other liquid assets.

6. Gurley-Shaw Thesis (1960)

James Gurley and Edward Shaw developed a fundamental theory explaining how *financial intermediaries* and *near-money assets* modify traditional monetary analysis. Their thesis is centred around the broader financial structure and the concept of "inside money" versus "outside money."

Main Concepts

1. **Inside Money vs Outside Money:**
   - ❖ Inside Money: Money created within the private sector (e.g., bank deposits).
   - ❖ Outside Money: Money created outside the private sector, typically by the government (e.g., fiat currency).
2. **Financial Intermediation:** Non-bank financial intermediaries, such as insurance companies, pension funds, and mutual funds, create liquidity by issuing liabilities that are less liquid than money but more liquid than capital assets.
3. **Portfolio Diversification:** Households and firms diversify their wealth among multiple financial assets based on liquidity, yield, and risk characteristics.

Money demand depends not only on income but also on the available alternative financial assets:

$$M = f\ (Y, r, L)$$

Where:

M= Money Demand

Y = Income

r = Interest rate

L = Liquidity characteristics of alternative assets

Contributions to Monetary Economics:

- Highlighted the declining significance of "pure money."
- Emphasized the competition between money and near-money assets.
- Asserted that money supply should be seen as a complex of monetary and near-monetary liabilities.

The Gurley-Shaw thesis argues that the demand for money is not fundamentally different from the demand for other liquid assets. Thus, the demand for money can be seen as part of the broader demand for liquidity in the economy. As the availability of alternative liquid assets increases, the demand for money decreases, all else being equal.

Table-5: Basic Comparison of Rediff Committee Report and Gurley-Shaw Thesis

Aspect	Rediff Committee Report	Gurley-Shaw Thesis
Focus	Liquidity measurement for monetary control	Financial intermediation and liquidity
Definition of Money	Broad money including near-money assets	Inside money and outside money
Role of Financial Intermediaries	Secondary but important	Central to liquidity creation
Policy Implication	Broad-based credit control measures	Understanding money supply composition

UNIT-3

MULTIPLE CHOICE QUESTIONS (MCQs)

1. In Baumol's model, the demand for money varies inversely with

A. Transaction costs

B. Income

C. Interest rate

D. Price level

Answer: C. Interest rate

2. The cost of withdrawing cash frequently in Baumol's model is called

A. Brokerage cost

B. Storage cost

C. Insurance cost

D. Interest cost

Answer: A. Brokerage cost

3. In Baumol's inventory-theoretic approach, total cost is minimized when

A. Holding cash is maximized

B. Number of transactions is maximized

C. Expenditure is minimized

D. Total transaction cost equals holding cost

Answer: D. Total transaction cost equals holding cost

4. The mathematical formula for optimal cash balance in Baumol's model is

A. $M = \sqrt{(2bT/i)}$

B. $M = 2bT/i$

C. $M = \sqrt{(bT/2i)}$

D. $M = (bT)/i$

Answer: A. $M = \sqrt{(2bT/i)}$

5. In Tobin's model, individuals diversify their portfolios due to

A. Fear of inflation

B. Desire to minimize transaction costs

C. Risk and return trade-off

D. Interest rate changes

Answer: C. Risk and return trade-off

6. According to Tobin, money is preferred because it

A. Yields high returns

B. Is risky

C. Is a productive asset

D. Is risk-free

Answer: D. Is risk-free

7. In Tobin's portfolio model, the slope of the opportunity set is determined by

A. Rate of interest

B. Risk aversion

C. Variance of bond returns

D. Expected utility

Answer: A. Rate of interest

8. Turvey's approach treats transactions services as a function of

A. Banking services only

B. Cash holdings only

C. Both cash holdings and banking services

D. Money supply

Answer: C. Both cash holdings and banking services

9. In Turvey's model, the production of transactions is analogous to

A. Investment theory

B. Production theory

C. Keynesian theory

D. IS-LM framework

Answer: B. Production theory

10. Which model assumes that individuals face a trade-off between holding cash and using banking services?

A. Baumol

B. Tobin

C. Keynes

D. Turvey

Answer: D. Turvey

11. If brokerage costs increase in Baumol's model, the optimal cash balance will

A. Increase

B. Decrease

C. Remain the same

D. First increase, then decrease

Answer: A. Increase

12. The risk-return frontier in Tobin's model is

A. Downward sloping

B. Upward sloping

C. Vertical

D. Horizontal

Answer: B. Upward sloping

13. The variance of bond returns in Tobin's model is represented by

A. σ^2

B. σ

C. i

D. W

Answer: A. σ^2

14. In Turvey's model, minimizing the cost of producing transactions implies

A. Maximizing cash balance

B. Optimizing the combination of cash and banking services

C. Avoiding banking services

D. Holding maximum bonds

Answer: B. Optimizing the combination of cash and banking services

15. In Baumol's model, if interest rates rise, the number of transactions will

A. Increase

B. Decrease

C. Stay constant

D. Fall to zero

Answer: A. Increase

16. In Tobin's analysis, a perfectly risk-averse individual would

A. Avoid both money and bonds

B. Hold all bonds

C. Hold an equal proportion

D. Hold all money

Answer: D. Hold all money

17. Which model introduces a production function for transaction services?

A. Baumol

B. Tobin

C. Turvey

D. Friedman

Answer: C. Turvey

18. In Tobin's model, an individual's portfolio selection depends on

A. Only interest rates

B. Only transaction costs

C. Both expected return and risk

D. Inflation expectations only

Answer: C. Both expected return and risk

19. The basic objective of Baumol's inventory model is to

A. Maximize returns

B. Minimize cost

C. Increase interest rates

D. Maximize cash holdings

Answer: B. Minimize cost

20. In Baumol's model, total cost is minimized where the marginal holding cost equals

A. Marginal transaction cost

B. Total transaction cost

C. Fixed cost

D. Marginal cost of bonds

Answer: A. Marginal transaction cost

21. In Tobin's model, an increase in risk aversion will lead to

A. Decrease in asset holding

B. Higher bond holding

C. Equal holding of money and bonds

D. Higher money holding

Answer: D. Higher money holding

22. In the Turvey approach, the cost of banking services is treated as

A. Variable cost

B. Fixed cost

C. Sunk cost

D. Marginal cost

Answer: A. Variable cost

23. According to Baumol, a fall in interest rate leads to

A. Smaller cash balances

B. Larger cash balances

C. Constant cash balances

D. No change

Answer: B. Larger cash balances

24. In Tobin's model, the indifference curves between risk and return are

A. Concave

B. Convex

C. Linear

D. Horizontal

Answer: B. Convex

25. In Baumol's analysis, brokerage cost (b) is assumed to be

A. Proportional to the amount withdrawn

B. Zero

C. Dependent on interest rate

D. Fixed per transaction

Answer: D. Fixed per transaction

26. The opportunity cost of holding money is represented by

A. Price level

B. Real income

C. Interest rate

D. Unemployment rate

Answer: C. Interest rate

27. Tobin's model is an improvement over Keynesian liquidity preference because it introduces

A. Income as a factor

B. Transactions motive

C. Risk considerations

D. Monetary policy tools

Answer: C. Risk considerations

28. In Baumol's model, if transaction volume T increases, the optimal cash balance will

A. Increase

B. Decrease

C. Remain constant

D. Fluctuate randomly

Answer: A. Increase

29. Turvey's model can be compared to

A. Law of diminishing returns

B. Production optimization models

C. Multiplier models

D. Consumption functions

Answer: B. Production optimization models

30. The main assumption behind Tobin's model is that people prefer

A. Only risky assets

B. A combination of risky and risk-free assets

C. Only risk-free assets

D. Only speculative assets

Answer: B. A combination of risky and risk-free assets

31. In Baumol's formula, T represents

A. Brokerage cost

B. Total money demand

C. Total transaction volume

D. Interest income

Answer: C. Total transaction volume

32. In Tobin's model, the greater the variance of bond returns, the

A. Higher the money demand

B. Lower the money demand

C. More investment in bonds

D. Less risk in the market

Answer: A. Higher the money demand

33. Turvey suggests that transaction services can be treated like

A. Public goods

B. Capital goods

C. Consumption goods

D. Production goods

Answer: D. Production goods

34. In Baumol's model, the cash balance is directly proportional to

A. Square root of transactions

B. Square root of interest rate

C. Directly to brokerage cost

D. Square of transaction volume

Answer: A. Square root of transactions

35. In Tobin's model, the capital market line shows

A. All possible risk-free assets

B. The optimal trade-off between risk and return

C. Money supply in the economy

D. Riskless investment opportunities

Answer: B. The optimal trade-off between risk and return

36. According to Turvey, the user cost of money involves both

A. Bank charges and inflation

B. Bank charges and brokerage fees

C. Holding cash and banking costs

D. Banking profits and consumer savings

Answer: C. Holding cash and banking costs

37. Tobin's model uses which of the following to represent expected returns?

A. i (interest rate)

B. σ^2 (variance)

C. T (transactions)

D. E(r) (expected return)

Answer: D. E(r) (expected return)

38. Turvey's analysis treats the cost of holding cash as analogous to

A. Rent

B. Depreciation

C. Wage

D. Interest

Answer: D. Interest

39. In Baumol's model, the square root rule implies that money demand is

A. Directly proportional to income

B. Proportional to the square root of income

C. Inversely proportional to income

D. Proportional to the square of income

Answer: B. Proportional to the square root of income

40. In Tobin's model, a risk-neutral individual will

A. Hold all bonds

B. Hold all money

C. Hold no assets

D. Distribute equally between money and bonds

Answer: A. Hold all bonds

41. In Baumol's model, as the interest rate rises, the average cash balance

A. Increases

B. Decreases

C. Remains constant

D. First rises then falls

Answer: B. Decreases

42. In Turvey's model, which of the following is considered a substitute for cash holdings?

A. Time deposits

B. Bonds

C. Banking services

D. Currency

Answer: C. Banking services

43. The Tobin model implies that when bond returns become more volatile, individuals will

A. Hold more bonds

B. Hold less money

C. Invest more aggressively

D. Shift towards more money holdings

Answer: D. Shift towards more money holdings

44. In Tobin's analysis, the trade-off between return and risk is known as

A. Risk minimization

B. Return maximization

C. Portfolio balance

D. Monetary equilibrium

Answer: C. Portfolio balance

45. The basic production function of transactions services in Turvey's approach is based on

A. Cobb-Douglas function

B. Leontief function

C. Linear function

D. Constant returns to scale

Answer: A. Cobb-Douglas function

46. In Baumol's model, if transaction volume quadruples, optimal cash balances will

A. Become half

B. Quadruple

C. Remain constant

D. Double

Answer: D. Double

47. Baumol assumes that cash is withdrawn

A. Continuously

B. Randomly

C. At fixed intervals

D. Only when necessary

Answer: C. At fixed intervals

48. Turvey's approach suggests that the combination of cash and banking services should minimize

A. Inflation

B. Income inequality

C. Total transaction cost

D. Bank profits

Answer: C. Total transaction cost

49. In Tobin's analysis, when risk preference is low, the slope of the indifference curve is

A. Steeper

B. Flatter

C. Vertical

D. Horizontal

Answer: A. Steeper

50. In Baumol's model, the opportunity cost of holding cash is measured by

A. Rate of inflation

B. Interest rate forgone

C. Transaction cost

D. Fixed cost

Answer: B. Interest rate forgone

51. Turvey identifies the optimum point of transaction production where

A. Total output is highest

B. Marginal cost equals marginal benefit

C. Banking services are zero

D. Cash holding is maximum

Answer: B. Marginal cost equals marginal benefit

52. In Tobin's portfolio choice model, the risk of bonds is measured by

A. Variance alone

B. Coefficient of variation

C. Beta coefficient

D. Standard deviation

Answer: D. Standard deviation

53. If the interest rate falls, Baumol's model predicts that the number of cash withdrawals will

A. Increase

B. Decrease

C. Stay constant

D. Initially increase then fall

Answer: B. Decrease

54. In Tobin's model, diversification leads to a portfolio with

A. Minimum risk and maximum return

B. Minimum return and maximum risk

C. High volatility

D. Low liquidity

Answer: A. Minimum risk and maximum return

55. In Turvey's model, technological advancement in banking services would cause

A. More cash holding

B. Lesser reliance on banking

C. Greater use of banking services

D. Decrease in money demand

Answer: C. Greater use of banking services

56. The optimal portfolio in Tobin's model is found where the highest indifference curve

A. Is tangent to the opportunity set

B. Meets the risk axis

C. Meets the return axis

D. Is at the origin

Answer: A. Is tangent to the opportunity set

57. Baumol's cash management model implies that individuals adjust their cash balances

A. Instantly to changes in prices

B. Smoothly over time

C. Randomly without any pattern

D. Only in response to income changes

Answer: B. Smoothly over time

58. Tobin's concept of portfolio balance assumes that individuals are

A. Risk neutral

B. Risk indifferent

C. Risk loving

D. Risk averse

Answer: D. Risk averse

59. Turvey's model treats banking services as

A. Inferior goods

B. Luxury goods

C. Public goods

D. Substitute for cash

Answer: D. Substitute for cash

60. In Baumol's model, brokerage fee is incurred when

A. Cash is deposited

B. Cash is withdrawn

C. Bonds are bought or sold

D. Money is held idle

Answer: C. Bonds are bought or sold

61. Tobin's model shows that diversification reduces

A. Expected returns

B. Total returns

C. Portfolio risk

D. Inflation

Answer: C. Portfolio risk

62. In Turvey's framework, holding more banking services relative to cash implies

A. Higher opportunity cost

B. Lower opportunity cost

C. No change in cost

D. Complete elimination of costs

Answer: B. Lower opportunity cost

63. In Baumol's model, optimal cash balance is achieved when

A. Total cost is minimized

B. Return is maximized

C. Risk is minimized

D. Inflation is neutralized

Answer: A. Total cost is minimized

64. Tobin's model assumes that the return on bonds is

A. Risk-free

B. Risky and uncertain

C. Constant

D. Declining over time

Answer: B. Risky and uncertain

65. Baumol's model shows that money demand is a function of

A. Level of prices

B. Supply of credit

C. Rate of inflation

D. Level of transactions

Answer: D. Level of transactions

66. Tobin's efficient frontier represents portfolios that

A. Minimize returns

B. Maximize risk

C. Maximize return for a given level of risk

D. Maximize money holdings

Answer: C. Maximize return for a given level of risk

67. Turvey's model focuses on the relationship between cash management and

A. National income

B. Fiscal deficit

C. Government policies

D. Banking technology

Answer: D. Banking technology

68. In Baumol's model, the holding cost of money is the

A. Depreciation of cash

B. Interest foregone

C. Inflation cost

D. Transaction cost

Answer: B. Interest foregone

69. Tobin's model suggests that riskier bonds will cause individuals to

A. Hold more bonds

B. Hold less money

C. Diversify into money

D. Abandon bonds altogether

Answer: C. Diversify into money

70. Turvey emphasized that banking services

A. Reduce transaction costs

B. Increase transaction costs

C. Are irrelevant to cash holding

D. Eliminate the need for money

Answer: A. Reduce transaction costs

71. In Baumol's inventory-theoretic approach, the formula for optimal cash balance **is**

A. $\sqrt{(2bT/r)}$

B. $2bT/r$

C. bT^2/r

D. √(bT/2r)

Answer: A. √(2bT/r)

72. In Tobin's analysis, indifference curves between expected return and risk represent

A. Different levels of satisfaction

B. Different income levels

C. Changes in money supply

D. Banking sector reforms

Answer: A. Different levels of satisfaction

73. Turvey's model suggests that better banking services

A. Increase demand for money

B. Reduce need for holding idle cash

C. Make cash more attractive

D. Have no effect on money demand

Answer: B. Reduce need for holding idle cash

74. The variance of bond returns in Tobin's model measures

A. Average risk

B. Systematic risk

C. Total risk

D. Liquidity

Answer: C. Total risk

75. In Baumol's model, the relationship between cash balance (C) and transactions (T) is

A. C = T

B. C ∝ √T

C. C = T/2

D. C ∝ 1/T

Answer: B. C ∝ √T

76. The liquidity approach to monetary theory primarily emphasizes:

A. Only the role of currency

B. Only bank deposits

C. The role of government spending

D. The spectrum of liquid financial assets

Answer: D. The spectrum of liquid financial assets

77. Which among the following is not typically considered a near-money asset?

A. Savings deposits

B. Treasury bills

C. Government bonds

D. Agricultural land

Answer: D. Agricultural land

78. According to the liquidity approach, financial assets are viewed along:

A. A rigid classification

B. A liquidity spectrum

C. A monetary base

D. A fixed-income matrix

Answer: B. A liquidity spectrum

79. The Rediff Committee was established in:

A. 1960

B. 1965

C. 1969

D. 1972

Answer: C. 1969

80. The Rediff Committee mainly recommended focusing on:

A. Only M1 money supply

B. Total liquidity in the economy

C. Only currency in circulation

D. Inflation targeting

Answer: B. Total liquidity in the economy

81. In the liquidity structure diagram, which of the following is at the core?

A. Near-money assets

B. Industrial shares

C. Long-term bonds

D. Currency and demand deposits

Answer: D. Currency and demand deposits

82. What instrument was highlighted by the Rediff Committee for liquidity control?

A. Gold standard

B. Selective credit controls

C. Wage policy

D. Price ceilings

Answer: B. Selective credit controls

83. In the asset allocation equation W=M+B+N, "N" stands for:

A. Net exports

B. National debt

C. Near-money assets

D. Nominal GDP

Answer: C. Near-money assets

84. Which term refers to money created outside the private sector according to Gurley and Shaw?

A. Outside money

B. Inside money

C. Demand deposits

D. Nominal money

Answer: A. Outside money

85. Gurley and Shaw emphasized the role of:

A. Industrial growth

B. Financial intermediaries

C. Agricultural output

D. Fiscal deficits

Answer: B. Financial intermediaries

86. Financial intermediaries create liquidity by issuing:

A. Non-liquid assets

B. Physical capital

C. Liquid liabilities

D. Long-term bonds exclusively

Answer: C. Liquid liabilities

87. The equation W=M+F+KW includes "F," which stands for:

A. Fiscal deficit

B. Fixed deposits

C. Foreign reserves

D. Financial intermediary liabilities

Answer: D. Financial intermediary liabilities

88. Which factor influences the individual's decision to hold a particular asset under the liquidity approach?

A. Only its face value

B. Only risk

C. Tax implications only

D. Liquidity, risk, maturity, and return

Answer: D. Liquidity, risk, maturity, and return

89. Treasury bills are considered:

A. Purely capital assets

B. Near-money assets

C. Risk-free equities

D. Highly illiquid

Answer: B. Near-money assets

90. According to Gurley-Shaw, competition occurs between:

A. Money and near-money assets

B. Households and banks

C. Government and private investors

D. Banks and fiscal policy makers

Answer: A. Money and near-money assets

91. In the liquidity approach, what is the ultimate determinant of monetary demand?

A. Employment rate

B. Wealth distribution among various assets

C. Government spending

D. Tax policies

Answer: B. Wealth distribution among various assets

92. The broader liquidity concept includes:

A. Only cash

B. Only stocks

C. Only real estate

D. Cash, deposits, securities

Answer: D. Cash, deposits, securities

93. Gurley-Shaw model suggests that near-money assets are:

A. Completely illiquid

B. Perfect substitutes for cash

C. Partial substitutes for cash

D. Totally independent of cash

Answer: C. Partial substitutes for cash

94. An implication of the liquidity approach is that monetary policy must:

A. Monitor a broad range of assets

B. Consider a narrow definition of money

C. Target only inflation

D. Focus only on unemployment

Answer: A. Monitor a broad range of assets

95. Which equation explains the functional form of money demand including liquidity?

A. M=f(Y,r,L)

C. M=S−I

D. M=G+T

Answer: A. M=f(Y,r,L)

96. Gurley and Shaw introduced the concept of "inside money" as money created by:

A. Households

B. Banks and financial intermediaries

C. Government authorities

D. International organizations

Answer: B. Banks and financial intermediaries

97. According to the liquidity approach, holding near-money assets increases when:

A. Inflation is expected to rise

B. Returns on bonds fall

C. Liquidity preference falls

D. Interest rates are stable

Answer: A. Inflation is expected to rise

98. In the liquidity spectrum, assets are ranked according to:

A. Profitability

B. Risk

C. Ease of convertibility into cash

D. Interest rates offered

Answer: C. Ease of convertibility into cash

99. Rediff Committee emphasized the role of _____ over narrow measures of money supply.

A. Budget deficit

B. Import substitution

C. Income distribution

D. Overall liquidity

Answer: D. Overall liquidity

100. Gurley-Shaw thesis was an important advancement because it integrated:

A. Financial intermediaries with monetary theory

B. Only fiscal variables

C. Aggregate supply functions

D. Consumption theories

Answer: A. Financial intermediaries with monetary theory

101. Rediff Committee suggested controlling liquidity through:

A. Open market operations alone

B. Direct taxes

C. Reserve ratio adjustments and credit policy

D. Subsidy reforms

Answer: C. Reserve ratio adjustments and credit policy

102. Which one is an example of "inside money"?

A. Currency notes issued by RBI

B. Time deposits of a commercial bank

C. Gold reserves

D. Foreign investments

Answer: B. Time deposits of a commercial bank

103. The Gurley-Shaw model implies that monetary policy becomes:

A. Simpler

B. Redundant

C. More complicated

D. Ineffective

Answer: C. More complicated

104. In liquidity approach, wealth is allocated among assets based on their:

A. Expected returns, liquidity, and risk

B. Tax rates

C. Political stability

D. Wage growth

Answer: A. Expected returns, liquidity, and risk

105. Financial intermediaries contribute to the money supply by:

A. Restricting credit

B. Blocking savings

C. Destroying monetary base

D. Creating secondary liquid assets

Answer: D. Creating secondary liquid assets

106. Rediff Committee proposed liquidity aggregates beyond the traditional:

A. GNP aggregates

B. M1 aggregates

C. Fiscal deficit targets

D. Employment metrics

Answer: B. M1 aggregates

107. Gurley and Shaw argued that in a developed financial system, inside money:

A. Disappears

B. Requires gold backing

C. Stays insignificant

D. Becomes dominant

Answer: D. Becomes dominant

108. A higher liquidity preference curve indicates:

A. Higher demand for near-money assets

B. Lower demand for cash

C. No change in asset preferences

D. Total investment in physical capital

Answer: A. Higher demand for near-money assets

109. The liquidity approach views bonds as:

A. Perfect substitutes for cash

B. Purely investment assets

C. Near-money assets with varying liquidity

D. Physical capital goods

Answer: C. Near-money assets with varying liquidity

110. According to Gurley-Shaw, financial intermediaries reduce:

A. The supply of inside money

B. Transaction costs and liquidity risks

C. Aggregate liquidity

D. Currency supply

Answer: B. Transaction costs and liquidity risks

111. Which committee first emphasized liquidity aggregates in India?

A. Rediff Committee

B. Chakravarty Committee

C. Narasimham Committee

D. Rangarajan Committee

Answer: A. Rediff Committee

112. Gurley and Shaw argued that outside money consists primarily of:

A. Government currency and bonds

B. Demand deposits of banks

C. Corporate equities

D. Bank-created credit

Answer: A. Government currency and bonds

113. In the liquidity approach, what shifts wealth holdings between money and near-money assets?

A. Changes in employment rate

B. Variations in liquidity preference and interest rates

C. Political reforms

D. Stock market fluctuations alone

Answer: B. Variations in liquidity preference and interest rates

114. The main limitation of traditional money supply analysis, according to liquidity theorists, is:

A. Ignoring inflation

B. Ignoring taxation

C. Emphasizing employment excessively

D. Narrow focus on cash and demand deposits

Answer: D. Narrow focus on cash and demand deposits

115. Gurley and Shaw model demonstrates that:

A. Money demand is unaffected by financial structures

B. Government spending fully determines money supply

C. Liquidity traps are non-existent

D. Financial assets influence monetary equilibrium

Answer: D. Financial assets influence monetary equilibrium

116. Which is considered a highly liquid near-money asset?

A. House property

B. Treasury bills

C. Corporate shares

D. Corporate bonds with 10-year maturity

Answer: B. Treasury bills

117. Rediff Committee stressed the monitoring of:

A. Only government expenditure

B. Only agricultural credit

C. All forms of liquidity in the economy

D. Foreign reserves exclusively

Answer: C. All forms of liquidity in the economy

118. Inside money differs from outside money because it:

A. Has gold backing

B. Represents private sector liabilities

C. Comes only from the government

D. Does not circulate

Answer: B. Represents private sector liabilities

119. In liquidity preference theory, a fall in interest rates:

A. Increases the holding of bonds

B. Reduces liquidity demand

C. Decreases investment

D. Increases taxation

Answer: A. Increases the holding of bonds

120. Gurley and Shaw suggest that financial innovation:

A. Reduces monetary stability

B. Broadens the scope of liquidity

C. Narrows the money supply

D. Freezes financial markets

Answer: B. Broadens the scope of liquidity

121. What is the main risk associated with near-money assets?

A. Default risk

B. Currency risk

C. Liquidity risk

D. Wage inflation

Answer: C. Liquidity risk

122. The liquidity approach implies that monetary authorities must track:

A. Only CPI inflation

B. Wage growth exclusively

C. Budget allocations

D. A wide range of financial assets

Answer: D. A wide range of financial assets

123. Which statement aligns with Gurley and Shaw's thinking?

A. Banks create money through loans

B. Only government creates money

C. Physical capital is the ultimate form of money

D. Wealth is fixed in the economy

Answer: A. Banks create money through loans

124. Which of the following increases broad liquidity in an economy?

A. Sale of treasury bills by central bank

B. Creation of time deposits

C. Increase in cash reserve ratio

D. Reduction in industrial production

Answer: B. Creation of time deposits

125. In the liquidity framework, monetary aggregates must be:

A. Broad and inclusive

B. Focused solely on cash

C. Ignored altogether

D. Controlled only by taxes

Answer: A. Broad and inclusive

126. The Baumol model of the demand for money is primarily based on the analogy of:

A. Bond pricing

B. Inventory management

C. Consumption theory

D. Exchange rate theory

Answer: B. Inventory management

127. Baumol's model introduces which cost to explain cash management?

A. Interest cost

B. Insurance cost

C. Brokerage cost

D. Transaction cos

Answer: D. Transaction cost

128. According to Tobin, individuals choose a portfolio of money and bonds based on:

A. Inflation targets

B. Preferences and liquidity ratios

C. Expected return and risk

D. Nominal GDP

Answer: C. Expected return and risk

129. One key difference between Baumol and Tobin's models is that Tobin:

A. Considers risk-return trade-off

B. Ignores risk in decision making

C. Excludes interest rates

D. Emphasizes constant money velocity

Answer: A. Considers risk-return trade-off

130. The Turvey approach focuses on money demand as a function of:

A. Long-run interest rates

B. Fiscal policy instruments

C. Consumption patterns

D. Real income and expectations

Answer: D. Real income and expectations

131. Which economist is most associated with the liquidity approach to money demand?

A. Keynes

B. Hicks

C. Patinkin

D. Gurley and Shaw

Answer: D. Gurley and Shaw

132. The Reddiff Committee Report is primarily associated with:

A. Monetary policy implementation

B. Rural credit structure reform

C. Money demand estimation techniques

D. Banking sector liberalization

Answer: B. Rural credit structure reform

133. Which of the following is a key assumption in Baumol's model?

A. Constant marginal utility of money

B. Interest rate is irrelevant

C. Fixed income received periodically

D. Money supply is exogenous

Answer: C. Fixed income received periodically

134. The liquidity preference curve in Tobin's model is:

A. Vertical

B. L-shaped

C. Convex to the origin

D. Concave to the origin

Answer: C. Convex to the origin

135. Baumol's analysis bridges the gap between:

A. Transactions demand and speculative demand

B. Classical and modern theories

C. Static and dynamic models

D. Microeconomic behaviour and macroeconomic aggregates

Answer: A. Transactions demand and speculative demand

136. Tobin's indifference curves represent combinations of:

A. Income and prices

B. Money and bonds with equal utility

C. Income and saving

D. Consumption and investment

Answer: B. Money and bonds with equal utility

137. Tobin's model suggests that as risk aversion increases, individuals will:

A. Hold more money and fewer bonds

B. Invest more in bonds

C. Ignore interest rates

D. Demand less liquidity

Answer: A. Hold more money and fewer bonds

138. Baumol's model treats cash as:

A. Idle wealth

B. Constant in real terms

C. A risky investment

D. Inventory that incurs opportunity cost

Answer: D. Inventory that incurs opportunity cost

139. Tobin's model is considered superior to Keynes's liquidity preference theory because it:

A. Considers uncertainty and risk

B. Ignores expectations

C. Assumes fixed bond returns

D. Uses a fixed money supply

Answer: A. Considers uncertainty and risk

140. Tobin assumes that individuals are:

A. Always risk-neutral

B. Completely irrational

C. Risk-averse

D. Risk-loving

Answer: C. Risk-averse

****

UNIT- 4

THEORY OF INFLATION AND MONETARY POLICY

UNIT-4

Theory of Inflation and Monetary Policy – Phillips Curve and its Modifications, Samuelson and Solow, The Natural Rate of Unemployment and Stagflation, Adaptive Expectation Augmented Approach, Friedman–Phelps.

1. INTRODUCTION TO INFLATION

Inflation refers to a sustained and appreciable increase in the general price level of goods and services over a period of time. It represents a decline in the purchasing power of money and affects both individuals and the broader economy by introducing uncertainty, redistributing income, and influencing consumption and investment decisions.

Inflation occurs when the overall demand for goods and services in an economy exceeds the available supply, or when costs of production increase persistently. It is fundamentally a monetary phenomenon linked to the expansion of money supply and demand pressures in the economy.

1.1 Characteristics of Inflation

- **Persistent Price Rise**: Inflation involves a continuous increase in the general price level, not a temporary or isolated spike in prices.
- **Generalized Increase**: It affects the economy as a whole, rather than individual commodities or sectors.
- **Monetary Nature**: It is often driven by an excessive increase in money supply relative to output.
- **Self-Reinforcing**: Once started, inflation tends to perpetuate itself unless countered by corrective policy actions.

1.2 Inflation vs. Price Rise

A simple increase in prices due to seasonal or one-off events is not classified as inflation unless it is sustained and affects a wide range of goods and services. Inflation must be distinguished from temporary price volatility caused by factors such as supply shocks or natural calamities.

1.3 The Quantity Theory of Money and Inflation

A basic theoretical explanation of inflation can be derived from the classical quantity theory of money, which is represented by the equation of exchange:

$$MV=PT$$

Where:

M = Money supply

V = Velocity of money

P = General price level

T = Volume of transactions or output

Assuming that the velocity of money (V) and the volume of transactions (T) remain constant in the short run, an increase in the money supply (M) leads directly to an increase in the price level (P). Thus, inflation results when the money supply grows faster than the real output of goods and services.

2. TYPES OF INFLATION

Inflation can be classified based on its nature, causes, and intensity. Understanding these types is essential for designing appropriate policy responses.

2.1 Based on Rate of Increase

i. **Creeping Inflation**: A mild and gradual rise in prices, generally less than 3% annually. It is often considered safe and even beneficial for economic growth.

ii. **Walking Inflation**: A moderate increase in prices, typically ranging between 3% and 10% per year. It may begin to affect economic stability if sustained.

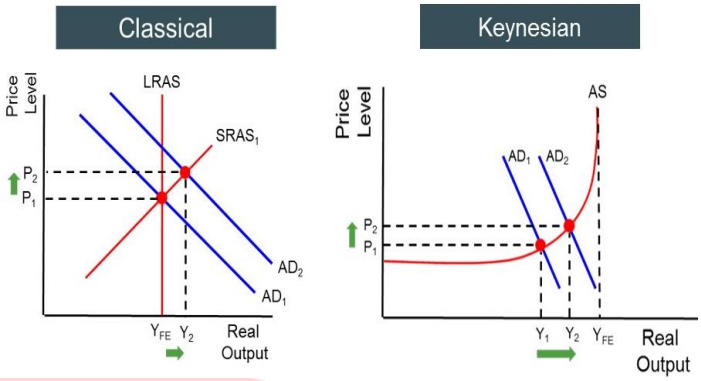
iii. **Running Inflation**: A rapid and accelerating rise in prices, between 10% and 20% per year. It tends to disrupt economic planning and lowers real incomes.

iv. **Hyperinflation**: An extremely high and typically accelerating rate of inflation, often exceeding 50% per month. It causes the collapse of monetary systems and requires drastic policy measures. Historical examples include Germany in the 1920s and Zimbabwe in the 2000s.

2.2 Based on Causes

i. **Demand-Pull Inflation**: Arises when aggregate demand in an economy outpaces aggregate supply. It is described as "too much money chasing too few goods."

As aggregate demand shifts from AD1 to AD2, the output remains the same (at full employment), but prices rise, causing inflation.



ii. **Cost-Push Inflation**: Occurs when prices rise due to increased costs of production, such as wages, raw materials, or fuel. The higher costs are passed on to consumers in the form of higher prices, even when demand remains constant.

$$P = \frac{W}{AP} + \pi$$

Where:

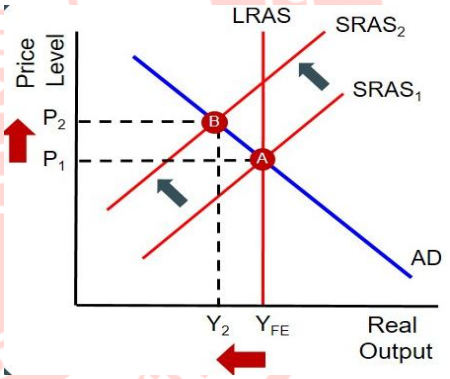
W = Wage rate

AP = Average productivity

π = Profit margin

If wages increase faster than productivity, unit costs rise, causing inflation.

A shift in AS from AS1 to AS2 (leftward) increases the price level from P1 to P2 even though demand (AD) remains unchanged.



iii. **Structural Inflation**: Seen mainly in developing economies, structural inflation arises due to supply rigidities, infrastructural bottlenecks, market imperfections, and sectoral imbalances. It is not solely driven by monetary or demand factors, but by deep-rooted structural problems.

3. CAUSES OF INFLATION

Inflation is a multifaceted phenomenon and may originate from various demand-side, supply-side, and structural factors. Understanding the underlying causes is essential for effective diagnosis and formulation of appropriate policy responses.

3.1 Demand-Side Causes (Demand-Pull Factors)

Demand-side inflation occurs when aggregate demand in the economy exceeds aggregate supply at full employment. The primary causes include:

1. **Increase in Money Supply**: When the central bank or government increases the supply of money in the economy faster than the growth in output, it fuels excess demand, leading to price rises.

$$\Delta M > \Delta Y \Rightarrow \text{Inflation}$$

2. **Increase in Government Expenditure**: Expansionary fiscal policies, especially deficit-financed spending on public infrastructure, subsidies, or social schemes, can boost aggregate demand.
3. **Growth in Private Consumption**: Higher disposable income due to rising wages, tax cuts, or consumer credit expansion increases household demand for goods and services.
4. **Increase in Investment Expenditure**: A surge in private or public investment raises the demand for capital and consumption goods, contributing to inflationary pressures.
5. **Increase in Exports**: Higher external demand for domestic goods reduces domestic supply, raising domestic prices if the economy is near full capacity.
6. **Reduction in Taxes**: Cuts in direct or indirect taxes can increase net income or reduce the cost of goods, stimulating demand.

3.2 Supply-Side Causes (Cost-Push Factors)

Supply-side inflation arises when costs of production rise independently of demand, leading to a leftward shift in aggregate supply.

1. **Wage-Push Inflation**: When strong labour unions negotiate higher wages without a corresponding rise in productivity, firms face higher costs and raise prices to maintain profitability.
2. **Raw Material and Energy Cost Increases**: A rise in prices of oil, coal, electricity, and essential raw materials like metals or fertilizers increases production costs.
3. **Imported Inflation**: Inflation transmitted through international trade due to rising prices of imports, especially petroleum, capital goods, or food grains.
4. **Supply Bottlenecks**: In developing countries, inadequate transport, storage, or production capacity in sectors like agriculture can cause shortages and price hikes.
5. **Natural Calamities**: Droughts, floods, or earthquakes reduce output and disrupt supply chains, leading to inflationary spikes.

3.3 Structural Causes (In Developing Economies)

In many developing countries, inflation arises from deep-rooted structural imbalances rather than purely monetary or demand factors:

1. **Agricultural Rigidity**: Supply of food grains remains inelastic due to monsoon dependency and poor infrastructure, even as population and demand grow.
2. **Industrial Bottlenecks**: Inefficient allocation of resources, underutilized capacity, and lack of technological advancement limit output expansion.
3. **Inefficient Distribution Systems**: Poor storage, transport, and marketing of essential goods lead to artificial shortages and price distortions.
4. **Black Marketing and Hoarding**: Traders may hoard goods in anticipation of price increases, reducing market supply and pushing up prices.
5. **Deficit Financing and Fiscal Imbalance**: Excessive reliance on borrowing or money creation to finance budget deficits results in a direct increase in purchasing power without corresponding output.

4. MEASUREMENT OF INFLATION

Accurate measurement of inflation is essential for economic planning, policymaking, and maintaining monetary stability. Inflation is measured by tracking changes in the general price level over a period of time using specific price indices.

4.1 Price Indices Used to Measure Inflation

1. **Consumer Price Index (CPI):** Measures changes in the retail prices of a basket of goods and services consumed by a typical household. It reflects the cost of living and is used to assess the impact of inflation on consumers.

   Formula:

$$CPI = \frac{(Cost\ of\ basket\ in\ current\ year)}{(Cost\ of\ basket\ in\ base\ year)} \times 100$$

2. **Wholesale Price Index (WPI):** Measures changes in the prices of goods at the wholesale level, before they reach the retail market. It includes primary articles, fuel, and manufactured products.

3. **GDP Deflator:** Measures the level of prices of all new, domestically produced goods and services in an economy. It is broader than CPI and WPI and adjusts nominal GDP to reflect real GDP.

   Formula:

$$GDP\ Deflator = \frac{Nominal\ GDP}{Real\ GDP} \times 100$$

4.2 Headline vs. Core Inflation

- **Headline Inflation:** Reflects the total inflation in the economy, including all items such as food and fuel, which are subject to frequent price fluctuations.
- **Core Inflation:** Excludes volatile components like food and energy. It reflects the underlying long-term trend in prices and is closely monitored by central banks for monetary policy decisions.

5. EFFECTS OF INFLATION

Inflation has wide-ranging consequences for the economy, influencing income distribution, economic efficiency, investment decisions, and macroeconomic stability. Its impact can be both beneficial and harmful depending on the rate and nature of inflation.

5.1 Effects on Income and Wealth Distribution

1. **Fixed-Income Groups Lose**: People who rely on fixed incomes, such as pensioners, salaried employees, or rentiers, find their real incomes eroded during inflationary periods as their earnings fail to keep pace with rising prices.
2. **Debtors Gain, Creditors Lose**: Borrowers benefit from inflation because they repay loans with money that has less purchasing power, whereas lenders suffer a loss in the real value of repayments.
3. **Business Class Gains**: Entrepreneurs and traders may benefit if prices rise faster than costs, enabling higher profit margins, especially during demand-pull inflation.
4. **Wealth Redistribution**: Inflation redistributes wealth from the poor and middle-income groups to the wealthy, as the latter can hedge against inflation by investing in real assets (like property, stocks).

5.2 Effects on Production and Investment

1. **Mild Inflation Stimulates Investment**: A moderate and predictable rise in prices can boost business confidence, encouraging investment and output expansion.
2. **High Inflation Discourages Long-Term Investment**: Uncertainty about future prices and costs increases risk, discouraging capital formation and shifting investment towards speculative or short-term assets.
3. **Distorted Price Signals**: Inflation can obscure relative price signals, leading to inefficient resource allocation and suboptimal production decisions.
4. **Cost of Input Volatility**: Rising input costs make it difficult for firms to plan production and manage costs, especially in sectors dependent on imported or energy-intensive inputs.

5.3 Effects on Consumption and Saving

1. **Consumption Increases Initially**: Anticipation of future price rises may prompt households to advance consumption, contributing to further inflationary pressures.
2. **Saving Declines**: If the real rate of return on savings becomes negative, people are discouraged from saving, leading to reduced funds for investment.
3. **Shift in Asset Preference**: Households may shift from financial to physical assets (like gold, real estate), fuelling speculative bubbles and undermining the financial sector.

5.4 Effects on Balance of Payments

1. **Export Competitiveness Falls**: Domestic inflation can make exports relatively expensive in the international market, reducing global demand for domestic goods.
2. **Import Dependency Rises**: Higher domestic prices may encourage the import of cheaper foreign goods, widening the trade deficit.
3. **Exchange Rate Pressures**: Persistent inflation may lead to currency depreciation as investors lose confidence in the domestic economy's stability.

6. CONTROL OF INFLATION (Anti-Inflationary Measures and Monetary Policy)

Inflation control is a primary objective of economic policy. It involves both monetary and fiscal tools, as well as direct and indirect controls. Among these, monetary policy plays a central role in moderating inflation through regulation of money supply, interest rates, and credit.

6.1 Monetary Policy

Monetary policy is the process by which a central bank manages the supply of money and interest rates to achieve macroeconomic objectives like price stability, full employment, and economic growth.

Objectives of Monetary Policy

1. **Price Stability**
   Prevent inflation and deflation, stabilizing the purchasing power of money.
2. **Economic Growth**
   Facilitate sustainable and inclusive development.
3. **Exchange Rate Stability**
   Maintain stability in the external value of the currency.
4. **Full Employment**
   Encourage productive use of labour force.
5. **Balance of Payments Equilibrium**
   Manage external sector imbalances.
6. **Monetary Stability**
   Ensure orderly conditions in the financial markets.

Types of Monetary Policy

1. **Expansionary Monetary Policy**
   - ❖ Aimed at increasing the money supply and reducing interest rates.
   - ❖ Adopted during a recession or slowdown.
2. **Contractionary Monetary Policy**
   - ❖ Aimed at decreasing money supply and increasing interest rates.
   - ❖ Used to control inflation.
3. **Neutral Monetary Policy**
   - ❖ Neither expansionary nor contractionary; maintains status quo.

6.2 Tools of Monetary Policy

A. Quantitative Instruments (General Tools)

These instruments affect the overall level of credit and liquidity in the economy.

1. **Bank Rate Policy**: The bank rate is the rate at which the central bank lends to commercial banks. When inflation rises, the bank rate is increased, discouraging borrowing and investment. This tightens liquidity and reduces demand.
2. **Open Market Operations (OMO):** The central bank sells government securities to absorb excess liquidity from the banking system. Selling securities reduces the cash reserves of commercial banks, limiting their lending capacity.

   Effect of Money Supply:

   $$\text{Money Supply}\downarrow \Rightarrow \text{AD}\downarrow \Rightarrow \text{Price Level}\downarrow$$

3. **Cash Reserve Ratio (CRR):** The portion of total deposits that commercial banks must hold as reserves with the central bank. Raising CRR reduces the funds available for banks to lend.
4. **Statutory Liquidity Ratio (SLR):** The percentage of deposits that banks must maintain in the form of gold, cash, or approved securities. An increase in SLR limits credit creation and helps control inflation.
5. **Repo Rate and Reverse Repo Rate:** The rate at which RBI lends to banks is called repo rate. The rate at which RBI borrows from banks is called reverse repo rate.

B. Qualitative Instruments (Selective Tools)

These are aimed at controlling credit in specific sectors:

1. **Credit Rationing:** The central bank can impose ceilings or limits on credit to particular sectors to curb inflationary lending.
2. **Moral Suasion:** The central bank may request or persuade commercial banks to restrict credit expansion.
3. **Margin Requirements:** By altering the margin requirement for loans against securities, the central bank can reduce speculative credit.

6.3 THEORIES OF MONETARY POLICY

1. Classical Theory of Monetary Policy

Key Concepts:

Based on the Quantity Theory of Money (QTM).

Money is neutral in the long run – it affects only the price level, not real variables like output or employment.

Equation of Exchange: **MV = PY**

Where: M = Money supply, V = Velocity of money, P = Price level, Y = Real output

Conclusion:

- Focus should be on maintaining price stability by controlling the money supply.
- No need for active monetary policy; market forces ensure full employment automatically.

2. Keynesian Theory of Monetary Policy

Key Concepts:

- Developed by John Maynard Keynes.
- Emphasizes the role of interest rate in influencing investment and aggregate demand.
- Advocates active monetary policy to manage fluctuations in the economy.

Liquidity Preference Theory:

- People demand money for transactions, precautionary, and speculative motives.
- At low interest rates, people hoard money (liquidity trap), rendering monetary policy ineffective.

Conclusion:

- Monetary policy is effective during inflation.
- Less effective in depression due to liquidity trap.
- Suggests coordination with fiscal policy for optimal results.

3. Neo-Classical Synthesis

Key Concepts:

- Integration of Classical and Keynesian ideas.
- In the short run, monetary policy can influence output and employment.
- In the long run, money is neutral – it only affects the price level.

Conclusion:

- Monetary policy is useful for demand management in the short term.
- Emphasis on maintaining long-term price stability.

4. Rational Expectations Theory (New Classical)

Key Concepts:

- People form expectations rationally using all available information.
- Anticipated monetary policy has no real effects on output or employment.
- Policy Ineffectiveness Proposition: Only unanticipated changes in money supply can affect real output.

Conclusion:

- Advocates for policy rules over discretion.
- Emphasizes credibility and transparency of central bank actions.

5. New Keynesian Theory

Key Concepts:

- Incorporates price and wage stickiness.
- Accepts short-run non-neutrality of money.

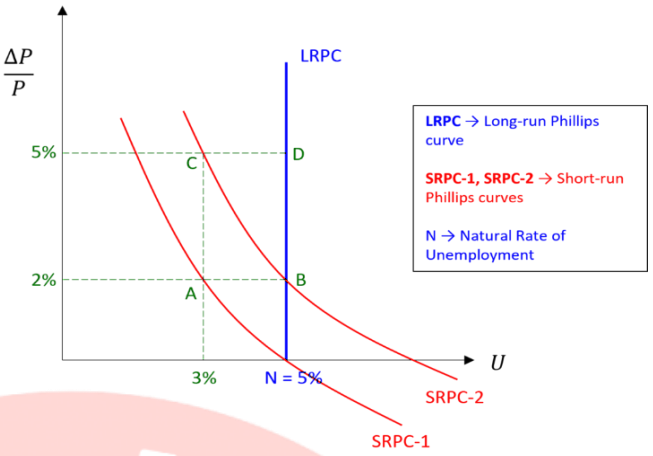
Conclusion:

- Justifies active monetary policy.
- Supports Inflation Targeting as a rule-based policy framework.

7. PHILLIPS CURVE:

The **Phillips Curve** represents the inverse relationship between inflation and unemployment. Initially formulated by economist **A.W. Phillips in 1958**. In its simplest form, the Phillips Curve was viewed as a ***short-run trade-off between inflation and unemployment***. It is typically illustrated as a downward-sloping curve in the inflation-unemployment space. The curve suggests that as aggregate demand in the economy increases, firms raise prices to cover increased production costs, leading to higher inflation, while at the same time, unemployment decreases as demand for labour increases.

The original Phillips Curve can be expressed mathematically as:



$$\pi = \pi_e - \beta\,(u - u_n)$$

Where,

π: Actual Inflation

π_e: Expected inflation

β: Sensitivity of inflation to changes in unemployment

u: Actual unemployment rate

u_n: Natural rate of unemployment

This equation suggests that when unemployment (u) is below the natural rate of unemployment (u_n), inflation (π) rises, and when unemployment is above the natural rate, inflation falls.

7.1. The Samuelson and Solow Phillips Curve (1960s)

While Phillips first observed the relationship between inflation and unemployment, the **Samuelson and Solow** modification of the Phillips Curve brought it into a more comprehensive context, especially during the 1960s.

Their version of the Phillips Curve retained the basic idea that policymakers could lower unemployment at the cost of higher inflation, suggesting that there was an exploitable trade-off.

The Samuelson and Solow Phillips Curve was drawn as a downward-sloping curve, with inflation on the vertical axis and unemployment on the horizontal axis. This curve depicted the relationship between these two economic variables as follows:

$$\boldsymbol{\pi = a - bu}$$

Where:

π: Inflation rate

u: unemployment rate

a, b: Parameters that define the relationship

7.2. Key Insights of the Samuelson-Solow Model

1. **Short-Run Trade-off**: The Samuelson and Solow version of the Phillips Curve reinforced the idea that there is a short-run trade-off between inflation and unemployment. By stimulating demand in the economy, policymakers could reduce unemployment but would likely cause inflation to rise.
2. **Policy Implications**: The model presented a dilemma for policymakers: to reduce unemployment below its natural rate, they would need to accept higher inflation. This idea was influential in shaping economic policy in the 1960s, particularly in Western economies that were grappling with high unemployment and inflation.
3. **Stabilization Policy**: According to the Samuelson-Solow model, demand management policies (e.g., fiscal or monetary policy) could be used to shift the economy along the Phillips Curve, balancing inflation and unemployment.

7.3. The Role of Expectations: The Expectations-Augmented Phillips Curve

The initial model, including the Samuelson and Solow version, did not account for expectations of inflation. However, in the late 1960s and 1970s, economists realized that expectations of future inflation played a significant role in determining the actual rate of inflation.

Milton Friedman and Edmund Phelps introduced the concept of adaptive expectations, which suggested that inflation expectations are formed based on past inflation. The Expectations-Augmented Phillips Curve modifies the original Phillips Curve to account for this:

$$\pi_t = \pi_e + \alpha\,(u_t - u_n)$$

Where:

π_t= Actual inflation at time t,

π_e = Expected inflation,

α = Sensitivity of inflation to changes in unemployment,

u_t = Actual unemployment rate at time t,

u_n = Natural rate of unemployment.

This modification essentially means that inflation expectations influence actual inflation, making the trade-off between inflation and unemployment temporary.

The **Friedman-Phelps Hypothesis** offers a modification of the Phillips Curve, introducing the concept of **long-run neutrality of money** and emphasizing the role of expectations in determining the trade-off between inflation and unemployment.

Key Points of the Friedman-Phelps Hypothesis:

- **Long-Run Phillips Curve:** In the long run, the Phillips curve is vertical at the **natural rate of unemployment**. This means that no permanent trade-off exists between inflation and unemployment in the long run. Any attempt to reduce unemployment below the natural rate leads to accelerating inflation.
- **Expectations-Augmented Phillips Curve:** The Phillips curve must be augmented with expectations of future inflation. According to this view, in the long run, there is no trade-off between inflation and unemployment because individuals adjust their expectations. As inflation rises, people begin to expect higher inflation, which results in higher nominal wages and prices, but the actual unemployment rate will return to the natural rate.

7.4. The Long-Run Phillips Curve (LRPC) and Natural Rate of Unemployment

In the long run, it was argued that the Phillips Curve would become vertical at the **natural rate of unemployment**. This insight came from Friedman and Phelps and was critical in understanding the long-term dynamics of inflation and unemployment.

In the long run, inflation expectations fully adjust, and any trade-off between inflation and unemployment disappears. The Phillips Curve becomes **vertical** at the natural rate of unemployment u_n. This is because once expectations have adjusted, inflation no longer has any effect on unemployment.

Mathematically, the long-run Phillips Curve is represented as:

$$\boldsymbol{\pi_t = \pi_e \ (\text{at } u = u_n)}$$

This implies that the natural rate of unemployment is unaffected by inflation. The long-run economy operates at this natural rate, and any attempt to reduce unemployment below this level will result in higher inflation without reducing the natural unemployment rate.

8. NATURAL RATE OF UNEMPLOYMENT

The **Natural Rate of Unemployment** (NRU) is the rate of unemployment that is expected in an economy with the long-run equilibrium, where all economic forces are in balance. It reflects the level of unemployment that would exist in an economy even in the absence of cyclical fluctuations (i.e., economic recessions or booms).

8.1. Types of Unemployment:

Frictional Unemployment: Occurs due to the time it takes for workers to find new jobs or shift between jobs.

Structural Unemployment: Caused by long-term changes in the economy, such as technological innovations, which lead to a mismatch between the skills of workers and the demands of the job market.

Seasonal Unemployment: Results from seasonal changes in demand for certain jobs, such as agriculture or tourism.

8.2. The Natural Rate of Unemployment and Inflation:

The NRU is closely related to the **Non-Accelerating Inflation Rate of Unemployment** (NAIRU), which is the level of unemployment at which inflation does not increase or decrease.

When unemployment is above the NRU, inflation tends to decrease. Conversely, when unemployment is below the NRU, inflation tends to rise, as wages increase due to the scarcity of labour.

9. STAGFLATION

Stagflation refers to a situation in an economy where inflation and unemployment rise simultaneously, which is counterintuitive to the usual trade-off described by the Phillips Curve. Stagflation can be caused by adverse **supply shocks**, such as an increase in oil prices or a reduction in the supply of critical resources, which leads to a rise in both inflation and unemployment.

9.1. Causes of Stagflation:

1. **Negative Supply Shocks**:

A sudden increase in the price of key raw materials (e.g., oil, food) increases production costs, leading firms to raise prices (inflation). At the same time, the increase in costs may reduce output and increase unemployment.

2. **Ineffective Monetary and Fiscal Policies**:

Policies that are too expansionary (such as excessive money supply growth or government spending) may lead to inflation without reducing unemployment. In the presence of structural problems, these policies may worsen unemployment.

3. **Expectations of Inflation**:

When people expect higher inflation, they adjust their wage demands, leading to cost-push inflation. This results in a feedback loop that increases both inflation and unemployment.

9.2. Policy Responses to Stagflation

Policymakers face a difficult challenge when dealing with stagflation because conventional tools like monetary policy and fiscal policy can only address one issue at a time. For example, contractionary policies (such as raising interest rates or reducing government spending) can reduce inflation but may exacerbate unemployment. Conversely, expansionary policies may reduce unemployment but increase inflation.

Expansionary monetary policy (lower interest rates or increasing money supply) may help reduce unemployment but worsen inflation.

Contractionary monetary policy (higher interest rates or reducing the money supply) may reduce inflation but could further increase unemployment.

UNIT- 4

MULTIPLE CHOICE QUESTIONS (MCQs)

1. Which of the following is the most common method used to measure inflation?

A. GDP Deflator

B. Wholesale Price Index (WPI)

C. Consumer Price Index (CPI)

D. Money Supply Index

Answer: C. Consumer Price Index (CPI)

2. The demand-pull inflation occurs when:

A. Aggregate demand exceeds aggregate supply.

B. There is an increase in production costs.

C. Supply shocks lead to price hikes.

D. The money supply decreases.

Answer: A. Aggregate demand exceeds aggregate supply.

3. Cost-push inflation is caused by:

A. Excessive demand for goods and services.

B. A decrease in consumer confidence.

C. Government-induced money supply growth.

D. An increase in production costs such as wages and raw materials.

Answer: D. An increase in production costs such as wages and raw materials.

4. Which monetary policy tool involves the central bank buying or selling government securities?

A. Discount Rate

B. Reserve Requirements

C. Open Market Operations

D. Moral Suasion

Answer: C. Open Market Operations

5. A rise in the bank rate by the central bank is intended to:

A. Encourage borrowing and spending.

B. Reduce the money supply and control inflation.

C. Increase credit availability for investment.

D. Boost government expenditure.

Answer: B. Reduce the money supply and control inflation.

6. Which of the following is NOT a function of the central bank in controlling inflation?

A. Setting the interest rate

B. Regulating money supply

C. Issuing currency

D. Setting wage levels for workers

Answer: D. Setting wage levels for workers

7. Inflation targeting is a strategy where central bank:

A. Set an explicit target for the inflation rate.

B. Focus on achieving a specific level of output.

C. Aim to reduce government deficits.

D. Focus on increasing employment rates.

Answer: A. Set an explicit target for the inflation rate.

8. What does the GDP deflator measure?

A. The cost of a fixed basket of consumer goods.

B. The prices of goods at the wholesale level.

C. The changes in wages in the economy.

D. The price changes of all newly produced goods and services in the economy.

Answer: D. The price changes of all newly produced goods and services in the economy.

9. In an inflationary environment, borrowers benefit because:

A. The value of money they borrow increases.

B. The real value of their debt decreases.

C. They pay lower interest rates.

D. The value of goods they purchase increases.

Answer: B. The real value of their debt decreases.

10. Which of the following is a likely result of high inflation?

A. Increased consumer confidence.

B. Reduced real income for fixed-income groups.

C. Greater investment in fixed assets.

D. Increased demand for goods and services.

Answer: B. Reduced real income for fixed-income groups.

11. In the context of inflation, the "output gap" refers to:

A. The difference between actual and potential output in the economy.

B. The difference between government spending and revenue.

C. The difference in wages across different industries.

D. The difference between consumption and savings.

Answer: A. The difference between actual and potential output in the economy.

12. Which of the following can be an effect of inflation on the balance of payments?

A. Increased export competitiveness.

B. Increased import dependency.

C. Higher national savings.

D. Reduction in trade deficits.

Answer: B. Increased import dependency.

13. The term "monetary policy" primarily refers to the:

A. Government's tax policies.

B. Policy of the government to control wages.

C. Laws that regulate international trade.

D. Actions taken by the central bank to manage the money supply and interest rates.

Answer: D. Actions taken by the central bank to manage the money supply and interest rates.

14. Which monetary policy tool involves adjusting the minimum reserves that commercial banks must hold?

A. Bank Rate

B. Open Market Operations

C. Cash Reserve Ratio

D. Margin Requirements

Answer: C. Cash Reserve Ratio

15. The primary purpose of inflation targeting is to:

A. Stabilize the price level and anchor inflation expectations.

B. Reduce government debt.

C. Promote faster economic growth.

D. Decrease interest rates.

Answer: A. Stabilize the price level and anchor inflation expectations.

16. Which of the following can be an outcome of excessive inflation?

A. Increased value of currency.

B. Decreased purchasing power for consumers.

C. Increased savings rates.

D. Increased government revenue.

Answer: B. Decreased purchasing power for consumers.

17. A decrease in the money supply by the central bank will likely result in:

A. Higher inflation.

B. Lower interest rates.

C. A stronger currency.

D. Increased borrowing.

Answer: C. A stronger currency.

18. Which of the following is an example of demand-pull inflation?

A. A sudden increase in the price of oil.

B. Higher wages leading to higher costs of production.

C. Excessive consumer spending in an overheated economy.

D. A sharp rise in import prices.

Answer: C. Excessive consumer spending in an overheated economy.

19. The main limitation of using CPI as a measure of inflation is:

A. It assumes a fixed basket of goods.

B. It cannot measure changes in wages.

C. It includes too many non-essential items.

D. It only measures the prices of imported goods.

Answer: A. It assumes a fixed basket of goods.

20. Which of the following is the main criticism of inflation targeting?

A. It focuses too much on employment.

B. It may ignore output and employment goals.

C. It often leads to lower interest rates.

D. It doesn't provide flexibility to respond to external shocks.

Answer: B. It may ignore output and employment goals.

21. The relationship between inflation and the real wage rate can be described as:

A. Inflation increases real wages when productivity is constant.

B. Inflation increases real wages when the economy is in a recession.

C. Inflation has no impact on real wages.

D. Inflation decreases real wages when nominal wages remain constant.

Answer: D. Inflation decreases real wages when nominal wages remain constant.

22. The monetary policy tool used to directly affect the money supply by buying or selling government securities is known as:

A. The discount rate.

B. Reserve requirements.

C. Open market operations.

D. Moral suasion.

Answer: C. Open market operations.

23. Which of the following is the most likely effect of an increase in the reserve requirements for banks?

A. Reduced lending capacity of banks.

B. Decreased interest rates.

C. Increased money supply.

D. Increased consumer spending.

Answer: A. Reduced lending capacity of banks.

24. The primary function of the central bank in controlling inflation is:

A. To set income taxes.

B. To control the supply of money and adjust interest rates.

C. To regulate corporate profits.

D. To monitor wages and prices.

Answer: B. To control the supply of money and adjust interest rates.

25. Which of the following can be a consequence of hyperinflation?

A. Increased confidence in the economy.

B. Stable prices across all sectors.

C. Improved public savings.

D. A decline in the value of the currency.

Answer: D. A decline in the value of the currency.

26. If inflation exceeds the target rate, a central bank might:

A. Decrease interest rates.

B. Increase the money supply.

C. Increase interest rates.

D. Increase government spending.

Answer: C. Increase interest rates.

27. The process of inflation targeting helps central banks by:

A. Ensuring they focus exclusively on interest rates.

B. Providing a clear framework for achieving price stability.

C. Allowing them to focus on unemployment alone.

D. Reducing the role of government in monetary decisions.

Answer: B. Providing a clear framework for achieving price stability.

28. A common critique of high inflation is that it leads to:

A. Increased real wages for workers.

B. Reduced uncertainty in the economy.

C. A decrease in the purchasing power of money.

D. Increased investment in capital markets.

Answer: C. A decrease in the purchasing power of money.

29. Which of the following is considered an indirect method to control inflation?

A. Open Market Operations

B. Price Controls

C. Taxation

D. Wage Freezes

Answer: A. Open Market Operations

30. What effect does an increase in interest rates typically have on inflation?

A. It decreases inflation by reducing aggregate demand.

B. It increases inflation by boosting consumer spending.

C. It has no effect on inflation.

D. It increases inflation by making loans more accessible.

Answer: A. It decreases inflation by reducing aggregate demand.

31. In a situation of stagflation, an economy experiences:

A. High inflation and high unemployment simultaneously.

B. Low inflation and low unemployment.

C. High growth and low inflation.

D. High wages and low inflation.

Answer: A. High inflation and high unemployment simultaneously.

32. Which of the following is a likely consequence of inflation for savers?

A. The real value of savings increases.

B. The real value of savings decreases.

C. Interest rates on savings rise.

D. The purchasing power of savings increases.

Answer: B. The real value of savings decreases.

33. The monetary policy stance that is aimed at reducing inflation is referred to as:

A. Expansionary monetary policy.

B. Contractionary monetary policy.

C. Neutral monetary policy.

D. Accommodative monetary policy.

Answer: B. Contractionary monetary policy.

34. A central bank can influence the inflation rate by changing the:

A. Exchange rate.

B. Wage rates.

C. Money supply.

D. Employment rate.

Answer: C. Money supply.

35. Which of the following is typically used by central banks to fight high inflation?

A. Increasing government spending.

B. Lowering interest rates.

C. Increasing money supply.

D. Raising interest rates.

Answer: D. Raising interest rates.

36. The Phillips curve shows the relationship between:

A. Inflation and unemployment.

B. Money supply and inflation.

C. Government spending and inflation.

D. Interest rates and economic growth.

Answer: A. Inflation and unemployment.

37. Which of the following would NOT typically contribute to cost-push inflation?

A. Increase in wages.

B. Higher oil prices.

C. Natural disasters affecting supply chains.

D. An increase in consumer demand.

Answer: D. An increase in consumer demand.

38. The classical theory of inflation suggests that inflation is caused by:

A. An increase in the money supply.

B. An increase in aggregate demand.

C. A decrease in aggregate supply.

D. A reduction in the money supply.

Answer: A. An increase in the money supply.

39. The real balance effect refers to:

A. The impact of higher inflation on real income.

B. The relationship between inflation and exchange rates.

C. The effect of price changes on consumer spending and saving.

D. The effect of wage increases on inflation.

Answer: A. The impact of higher inflation on real income.

40. Which of the following policies is generally used to address demand-pull inflation?

A. Decreasing taxes.

B. Reducing government spending.

C. Increasing government expenditure.

D. Lowering interest rates.

Answer: B. Reducing government spending.

41. What is the primary goal of a central bank when implementing contractionary monetary policy?

A. To reduce unemployment.

B. To reduce inflation.

C. To increase the money supply.

D. To increase government spending.

Answer: B. To reduce inflation.

42. The Keynesian view of inflation emphasizes:

A. Inflation is always a result of increased demand.

B. Inflation is caused by rising production costs.

C. Inflation results from the overexpansion of the money supply.

D. Inflation occurs when aggregate demand exceeds potential output.

Answer: D. Inflation occurs when aggregate demand exceeds potential output.

43. The Fisher equation relates:

A. Money supply, velocity, and output.

B. The supply of money and price levels.

C. Nominal interest rates, real interest rates, and expected inflation.

D. The rate of inflation and the level of employment.

Answer: C. Nominal interest rates, real interest rates, and expected inflation.

44. Which of the following is a common consequence of high inflation?

A. Uncertainty in the economy.

B. Increased interest rates on savings accounts.

C. Increased purchasing power of money.

D. Stable prices in the economy.

Answer: A. Uncertainty in the economy.

45. What is the impact of inflation on fixed-income earners?

A. They benefit as the real value of their income increases.

B. Their purchasing power remains unaffected.

C. They experience a decrease in the real value of their income.

D. They face higher tax burdens due to rising nominal income.

Answer: C. They experience a decrease in the real value of their income.

46. What is the main aim of the Monetarist view on controlling inflation?

A. Reducing government spending.

B. Promoting fiscal stimulus.

C. Decreasing interest rates.

D. Managing the money supply.

Answer: D. Managing the money supply.

47. What is one of the major criticisms of fiscal policies in controlling inflation?

A. They focus too much on controlling wages.

B. They can lead to higher debt and deficits.

C. They are usually implemented too quickly.

D. They always lead to inflation reduction.

Answer: B. They can lead to higher debt and deficits.

48. Which of the following would likely happen if inflation is consistently above target?

A. Central banks may increase the money supply.

B. The government may implement expansionary fiscal policy.

C. Interest rates may be raised by the central bank.

D. The government may reduce taxation.

Answer: C. Interest rates may be raised by the central bank.

49. Which of the following is a policy tool that can be used to reduce demand-pull inflation?

A. Reducing taxes.

B. Increasing interest rates.

C. Increasing government spending.

D. Lowering the money supply.

Answer: B. Increasing interest rates.

50. Which of the following is a direct result of high inflation on households?

A. Reduced savings.

B. Increased consumption.

C. Stable income levels.

D. Increased real wages.

Answer: A. Reduced savings.

51. The concept of "real wages" refers to:

A. Wages adjusted for inflation.

B. Wages before tax deductions.

C. The nominal value of wages.

D. Wages set by the government.

Answer: A. Wages adjusted for inflation.

52. When the inflation rate rises unexpectedly, the most likely effect on the economy is:

A. An increase in consumer spending.

B. A reduction in consumer confidence and spending.

C. A rise in fixed-income investments.

D. A decrease in unemployment rates.

Answer: B. A reduction in consumer confidence and spending.

53. An example of a supply-side inflationary shock is:

A. A large increase in government spending.

B. A sudden increase in the price of oil.

C. A reduction in tax rates.

D. A rise in demand for consumer goods.

Answer: B. A sudden increase in the price of oil.

54. Which monetary policy action is used to combat a deflationary recession?

A. Increase the money supply.

B. Raise interest rates.

C. Sell government bonds.

D. Reduce government spending.

Answer: A. Increase the money supply.

55. In terms of inflation, what does "wage-price spiral" refer to?

A. The effect of lower wages on inflation.

B. The rise in wages due to higher unemployment.

C. The effect of inflation on government wages.

D. The feedback loop of rising wages leading to higher costs, which leads to higher prices.

Answer: D. The feedback loop of rising wages leading to higher costs, which leads to higher prices.

56. What does the Phillips Curve originally represent?

A. The relationship between inflation and unemployment

B. The relationship between money supply and interest rates

C. The relationship between national income and price levels

D. The relationship between interest rates and the money supply

Answer: A. The relationship between inflation and unemployment

57. Who first established the Phillips Curve?

A. A.W. Phillips

B. Milton Friedman

C. Samuelson and Solow

D. Edmund Phelps

Answer: A. A.W. Phillips

58. According to the original Phillips Curve, what happens to inflation as unemployment decreases?

A. Inflation remains constant

B. Inflation decreases

C. Inflation increases

D. Inflation becomes unstable

Answer: C. Inflation increases

59. Which of the following does the Samuelson and Solow Phillips Curve emphasize?

A. A vertical long-run Phillips curve

B. A trade-off between inflation and unemployment in the short run

C. Inflation expectations

D. The long-run effect of monetary policy

Answer: B. A trade-off between inflation and unemployment in the short run

60. What mathematical form is used to express the Samuelson and Solow Phillips Curve?

A. $\pi = a - bu$

B. $\pi = au + \beta$

C. $\pi = c + du^2$

D. $\pi = u + b$

Answer: A. $\boldsymbol{\pi = a - bu}$

61. What does the parameter 'a' in the Samuelson-Solow Phillips Curve represent?

A. The inflation rate when unemployment is zero

B. The natural rate of unemployment

C. The slope of the curve

D. The unemployment rate when inflation is zero

Answer: A. The inflation rate when unemployment is zero

62. What does the parameter 'b' in the Samuelson-Solow Phillips Curve represent?

A. The natural rate of inflation

B. The level of unemployment at which inflation is zero

C. The expected inflation rate

D. The rate at which inflation changes in response to changes in unemployment

Answer: D. The rate at which inflation changes in response to changes in unemployment

63. The Expectations-Augmented Phillips Curve includes which of the following factors?

A. Only inflation

B. The expected inflation rate

C. The natural rate of unemployment

D. The rate of output growth

Answer: B. The expected inflation rate

64. Who introduced the concept of adaptive expectations into the Phillips Curve?

A. Samuelson and Solow

B. Milton Friedman and Edmund Phelps

C. John Maynard Keynes

D. A.W. Phillips

Answer: B. Milton Friedman and Edmund Phelps

65. According to the Expectations-Augmented Phillips Curve, what happens when inflation expectations rise?

A. The curve shifts upward

B. The curve becomes flatter

C. The curve shifts downward

D. The curve becomes vertical

Answer: A. The curve shifts upward

66. In the long run, the Phillips Curve becomes:

A. Horizontal

B. Vertical

C. Downward sloping

D. Upward sloping

Answer: B. Vertical

67. What is the concept of the 'natural rate of unemployment'?

A. The rate of unemployment when inflation is at its highest

B. The rate of unemployment when inflation is zero

C. The rate of unemployment when inflation is at its lowest

D. The unemployment rate where inflation expectations and actual inflation are equal

Answer: D. The unemployment rate where inflation expectations and actual inflation are equal

68. In the long run, inflation expectations fully adjust, and the Phillips Curve becomes:

A. Horizontal at zero inflation

B. Vertical at the natural rate of unemployment

C. Upward sloping with higher inflation

D. Downward sloping with low unemployment

Answer: B. Vertical at the natural rate of unemployment

69. What is stagflation?

A. A situation of low inflation and low unemployment

B. A situation of high inflation and high unemployment

C. A situation of high unemployment and low wages

D. A situation of high inflation and high interest rates

Answer: B. A situation of high inflation and high unemployment

70. What happens to the Phillips Curve when a negative supply shock occurs?

A. The curve shifts downward

B. The curve becomes vertical

C. The curve shifts upward

D. The curve becomes horizontal

Answer: C. The curve shifts upward

71. Which of the following is NOT a factor that shifts the Phillips Curve?

A. Changes in inflation expectations

B. Supply shocks

C. Monetary policy

D. Changes in the natural rate of unemployment

Answer: C. Monetary policy

72. What does the Expectations-Augmented Phillips Curve suggest about the long-run trade-off between inflation and unemployment?

A. There is no trade-off in the long run

B. The trade-off is permanent

C. The trade-off remains constant

D. The trade-off only exists in the short run

Answer: A. There is no trade-off in the long run

73. Which of the following causes a shift in the Expectations-Augmented Phillips Curve?

A. A change in the natural rate of unemployment

B. An increase in inflation expectations

C. A decrease in government spending

D. A decrease in wage rates

Answer: B. An increase in inflation expectations

74. The vertical long-run Phillips Curve represents:

A. No relationship between inflation and unemployment

B. A situation of high inflation and low unemployment

C. The natural rate of unemployment with no trade-off

D. A trade-off between inflation and unemployment in the long run

Answer: C. The natural rate of unemployment with no trade-off

75. According to the Samuelson-Solow model, when unemployment is reduced below the natural rate, what happens to inflation?

A. Inflation remains constant

B. Inflation decreases

C. Inflation becomes volatile

D. Inflation increases

Answer: D. Inflation increases

76. What does the Expectations-Augmented Phillips Curve explain about inflation in the long run?

A. Inflation will always decrease in the long run

B. Inflation will stabilize at a low rate

C. Inflation will rise even if unemployment is reduced

D. Inflation will eventually return to its original level

Answer: C. Inflation will rise even if unemployment is reduced

77. In the context of the Phillips Curve, the concept of the 'natural rate of unemployment' was introduced by:

A. Milton Friedman

B. Samuelson and Solow

C. A.W. Phillips

D. Edmund Phelps

Answer: A. Milton Friedman

78. In the long run, any attempt to reduce unemployment below its natural rate will result in:

A. Stable inflation

B. Higher inflation

C. Increased unemployment

D. Decreased inflation

Answer: B. Higher inflation

79. The wage-price spiral is an example of:

A. Inflationary expectations influencing inflation

B. A negative supply shock

C. A reduction in the natural rate of unemployment

D. A decrease in government intervention

Answer: A. Inflationary expectations influencing inflation

80. The long-run Phillips Curve implies that:

A. Inflation and unemployment are negatively correlated in the long run

B. Inflation can be controlled without affecting unemployment

C. There is a permanent trade-off between inflation and unemployment

D. Inflation is independent of unemployment in the long run

Answer: D. Inflation is independent of unemployment in the long run

81. What factor is likely to shift the Phillips Curve to the right?

A. A decrease in inflation expectations

B. A positive supply shock

C. An increase in inflation expectations

D. An increase in the natural rate of unemployment

Answer: C. An increase in inflation expectations

82. What happens to the Phillips Curve in the event of a positive supply shock?

A. The curve shifts upward

B. The curve becomes flatter

C. The curve becomes steeper

D. The curve shifts downward

Answer: D. The curve shifts downward

83. The vertical long-run Phillips Curve suggests that:

A. Inflation and unemployment are inversely related in the long run

B. The government can lower unemployment indefinitely

C. Inflation can be permanently reduced

D. The trade-off between inflation and unemployment disappears

Answer: D. The trade-off between inflation and unemployment disappears

84. The Expectations-Augmented Phillips Curve shows:

A. The relationship between inflation and unemployment in the long run

B. The trade-off between inflation and unemployment when inflation expectations are fixed

C. The effect of fiscal policy on inflation

D. The short-run trade-off between inflation and unemployment, adjusting for inflation expectations

Answer: D. The short-run trade-off between inflation and unemployment, adjusting for inflation expectations

85. According to the Expectations-Augmented Phillips Curve, inflation can only be reduced in the long run by:

A. Raising unemployment

B. Increasing interest rates

C. Reducing inflation expectations

D. Decreasing money supply

Answer: C. Reducing inflation expectations

86. If inflation expectations are adaptive, what happens in the short run as inflation increases?

A. The Phillips Curve shifts downward

B. Unemployment decreases temporarily

C. Inflation decreases

D. Unemployment increases

Answer: B. Unemployment decreases temporarily

87. A key limitation of the Phillips Curve in the 1970s was its failure to predict:

A. High inflation and high unemployment (stagflation)

B. Hyperinflation

C. Low inflation

D. A flat curve

Answer: A. High inflation and high unemployment (stagflation)

88. In the short run, policymakers can lower unemployment by:

A. Accepting higher inflation

B. Increasing taxes

C. Reducing government spending

D. Increasing interest rates

Answer: A. Accepting higher inflation

89. The main criticism of the Samuelson-Solow Phillips Curve model was that it:

A. Failed to account for adaptive inflation expectations

B. Could not explain stagflation

C. Overestimated the effects of fiscal policy

D. Ignored the role of monetary policy

Answer: B. Could not explain stagflation

90. The Expectations-Augmented Phillips Curve model suggests that:

A. There is no relationship between inflation and unemployment in the long run

B. Inflation expectations are irrelevant

C. Inflation and unemployment are inversely related in the short run

D. Inflation can be controlled without impacting unemployment

Answer: C. Inflation and unemployment are inversely related in the short run

91. The Natural Rate of Unemployment (NRU) refers to the rate of unemployment that:

A. Exists only during recessions

B. Reflects frictional and structural unemployment

C. Results from cyclical fluctuations in the economy

D. Is higher during periods of economic boom

Answer: B. Reflects frictional and structural unemployment

92. Which type of unemployment is considered part of the Natural Rate of Unemployment?

A. Cyclical Unemployment

B. Seasonal Unemployment

C. Frictional Unemployment

D. None of the above

Answer: C. Frictional Unemployment

93. The concept of NAIRU stands for:

A. National Adjustment Inflation Rate Unemployment

B. Non-Accelerating Inflation Rate of Unemployment

C. Nominally Adjusted Inflation Rate of Unemployment

D. None of the above

Answer: B. Non-Accelerating Inflation Rate of Unemployment

94. In the long run, the Phillips Curve is:

A. Vertical at the Natural Rate of Unemployment

B. Horizontal at the Natural Rate of Unemployment

C. Downward sloping

D. Upward sloping

Answer: A. Vertical at the Natural Rate of Unemployment

95. According to the Expectations-Augmented Phillips Curve, when actual unemployment is below the NRU, it leads to:

A. Decreased inflation

B. Decreased wages

C. Increased output

D. Increased inflation

Answer: D. Increased inflation

96. A negative supply shock, such as an increase in oil prices, typically causes:

A. Lower inflation and higher unemployment

B. Higher inflation and higher unemployment

C. Lower inflation and lower unemployment

D. Higher inflation and lower unemployment

Answer: B. Higher inflation and higher unemployment

97. Which of the following is a major cause of stagflation?

A. Increased government spending

B. Adverse supply shocks

C. Expansionary monetary policies

D. High demand for goods

Answer: B. Adverse supply shocks

98. The Natural Rate of Unemployment includes:

A. Only structural unemployment

B. Only frictional unemployment

C. Both structural and frictional unemployment

D. Cyclical unemployment

Answer: C. Both structural and frictional unemployment

99. A rise in oil prices is an example of:

A. Supply shock

B. Demand shock

C. Monetary shock

D. Fiscal shock

Answer: A. Supply shock

100. Which of the following is NOT associated with stagflation?

A. Increased prices of oil and other essential goods

B. Reduced economic output

C. Rising unemployment

D. Decreased inflation

Answer: D. Decreased inflation

101. The Expectations-Augmented Phillips Curve suggests that inflation expectations play a key role in determining:

A. Unemployment

B. The trade-off between inflation and unemployment

C. The natural rate of unemployment

D. None of the above

Answer: B. The trade-off between inflation and unemployment

102. According to Milton Friedman, the long-run Phillips Curve is:

A. Horizontal

B. Downward sloping

C. Upward sloping

D. Vertical

Answer: D. Vertical

103. In the short run, an increase in aggregate demand leads to:

A. A decrease in inflation and unemployment

B. An increase in inflation and unemployment

C. An increase in both inflation and output

D. An increase in unemployment

Answer: C. An increase in both inflation and output

104. Stagflation is most likely to occur during which of the following?

A. A recession caused by an adverse supply shock

B. An expansionary period of the business cycle

C. A period of rapid technological innovation

D. A government-imposed price ceiling

Answer: A. A recession caused by an adverse supply shock

105. A rise in wages due to a negative supply shock typically results in:

A. Higher inflation and lower unemployment

B. Lower inflation and higher unemployment

C. Higher inflation and higher unemployment

D. Lower inflation and lower unemployment

Answer: C. Higher inflation and higher unemployment

106. The NAIRU concept suggests that:

A. Inflation decreases when unemployment is above the natural rate

B. Inflation and unemployment are unrelated

C. Inflation increases when unemployment is below the natural rate

D. Both inflation and unemployment decrease together

Answer: C. Inflation increases when unemployment is below the natural rate

107. When the economy experiences stagflation, policymakers often face a dilemma because:

A. Policies to reduce inflation will worsen unemployment

B. Policies to reduce unemployment will worsen inflation

C. Policies to increase government spending will increase inflation

D. Both A and B

Answer: D. Both A and B

108. A negative supply shock typically leads to:

A. A rightward shift of the Phillips Curve

B. A leftward shift of the Phillips Curve

C. No change in the Phillips Curve

D. A vertical shift in the Phillips Curve

Answer: B. A leftward shift of the Phillips Curve

109. Inflation expectations in the adaptive expectations model are based on:

A. The government's fiscal policy

B. The natural rate of unemployment

C. Past inflation rates

D. Current output levels

Answer: C. Past inflation rates

110. Inflation expectations adjust:

A. Instantly following a change in monetary policy

B. Gradually based on previous inflation

C. Only in the long run

D. Based on the unemployment rate

Answer: B. Gradually based on previous inflation

111. The equation $\pi_t^e = \pi_{t-1} + a(\pi_t - \pi_{t-1})$ represents:

A. The adaptive expectations model

B. The natural rate of unemployment

C. The Phillips Curve

D. The relationship between inflation and unemployment

Answer: A. The adaptive expectations model

112. In the adaptive expectations model, α represents:

A. The rate of inflation

B. The unemployment rate

C. The speed at which inflation expectations adjust

D. The level of government spending

Answer: C. The speed at which inflation expectations adjust

113. If actual inflation exceeds expected inflation, the adaptive expectations model suggests that:

A. Expectations remain unchanged

B. Unemployment will decrease

C. Inflation will remain constant

D. Expectations adjust upwards gradually

Answer: D. Expectations adjust upwards gradually

114. The natural rate of unemployment is:

A. The unemployment rate when inflation is zero

B. The level of unemployment that leads to stable inflation

C. The unemployment rate with persistent inflation

D. The level of unemployment achieved only through government intervention

Answer: B. The level of unemployment that leads to stable inflation

115. Any attempt to reduce unemployment below the natural rate in the long run will:

A. Result in a permanent reduction in unemployment

B. Lead to a stable inflation rate

C. Lead to accelerating inflation

D. Not affect inflation

Answer: C. Lead to accelerating inflation

116. In the long run, the unemployment rate returns to:

A. The rate at which inflation becomes zero

B. The natural rate of unemployment

C. The level of unemployment determined by monetary policy

D. The level of unemployment that leads to a recession

Answer: B. The natural rate of unemployment

117. The expectations-augmented Phillips Curve includes:

A. The expected inflation rate

B. Only the actual inflation rate

C. The output gap

D. The government's fiscal policy

Answer: A. The expected inflation rate

118. If inflation rises unexpectedly, people will:

A. Immediately revise their inflation expectations

B. Keep their expectations unchanged

C. Gradually adjust their expectations upwards

D. Reduce their inflation expectations

Answer: C. Gradually adjust their expectations upwards

119. The long-run trade-off between inflation and unemployment is explained by:

A. The Adaptive Expectations model

B. The Rational Expectations Theor

C. The Monetarist Theory

D. The Friedman-Phelps hypothesis

Answer: D. The Friedman-Phelps hypothesis

120. The inflation rate depends on:

A. The natural rate of unemployment

B. The actual unemployment rate

C. Both the actual inflation rate and the expected inflation rate

D. Government fiscal policies

Answer: C. Both the actual inflation rate and the expected inflation rate

121. In the adaptive expectations model, if inflation rises continuously over several periods, individuals will:

A. Gradually increase their expectations of future inflation

B. Never adjust their inflation expectations

C. Decrease their expectations of future inflation

D. Expect inflation to decrease immediately

Answer: A. Gradually increase their expectations of future inflation

122. The adaptive expectations model assumes that individuals:

A. Use current inflation to forecast future inflation

B. Are always rational in their expectations

C. Form their expectations based on past inflation trends

D. Never adjust their inflation expectations

Answer: C. Form their expectations based on past inflation trends

123. The natural rate of unemployment is determined by:

A. Frictional and structural factors

B. The level of inflation

C. Government fiscal policy

D. The central bank's interest rates

Answer: A. Frictional and structural factors

124. Who is associated with the Quantity Theory of Money?

A. Irving Fisher

B. Milton Friedman

C. J.M. Keynes

D. Robert Lucas

Answer: A. Irving Fisher

125. In the equation MV = PY, 'V' stands for:

A. Value of goods

B. Volume of money

C. Velocity of money

D. Volume of production

Answer: C. Velocity of money

126. Which theory emphasizes the neutrality of money in the long run?

A. Keynesian Theory

B. Monetarist Theory

C. New Keynesian Theory

D. Classical Theory

Answer: D. Classical Theory

127. According to Keynes, the demand for money for speculative purposes depends on:

A. Employment level

B. Interest rate

C. Inflation

D. Income

Answer: B. Interest rate

128. The term 'liquidity trap' is associated with:

A. Classical economics

B. Rational expectations theory

C. Keynesian theory

D. Monetarism

Answer: C. Keynesian theory

129. Who propounded the theory of Permanent Income Hypothesis?

A. Milton Friedman

B. J.M. Keynes

C. R.G. Hawtrey

D. Robert Lucas

Answer: A. Milton Friedman

130. The monetarist school advocates:

A. Discretionary policy

B. No monetary policy

C. Complete fiscal dominance

D. Rule-based monetary policy

Answer: D. Rule-based monetary policy

131. In the Rational Expectations theory, monetary policy is:

A. Highly effective

B. Ineffective if anticipated

C. Always expansionary

D. Independent of inflation

Answer: B. Ineffective if anticipated

132. Which economist is associated with the Rational Expectations Hypothesis?

A. Irving Fisher

B. J.M. Keynes

C. Robert Lucas

D. Ben Bernanke

Answer: C. Robert Lucas

133. Keynesian theory is most effective during:

A. Depression

B. Stagflation

C. Boom

D. Hyperinflation

Answer: A. Depression

134. Which of the following theories supports price and wage rigidity?

A. Classical Theory

B. Monetarism

C. Rational Expectations

D. New Keynesian Theory

Answer: D. New Keynesian Theory

135. The New Classical theory assumes:

A. Price rigidity

B. Rational expectations

C. Government intervention

D. Active policy

Answer: B. Rational expectations

136. According to the credit view, monetary policy operates through:

A. Interest rates only

B. Inflation targeting

C. Bank credit channels

D. Taxation

Answer: C. Bank credit channels

137. Which of the following is a criticism of discretionary monetary policy?

A. Creates volatility

B. No time lags

C. Too effective

D. Always expansionary

Answer: A. Creates volatility

138. Which theory suggests that only unanticipated policy changes affect real output?

A. Classical Theory

B. Keynesian Theory

C. New Keynesian Theory

D. Rational Expectations Theory

Answer: D. Rational Expectations Theory

139. Which theory emphasizes the importance of credibility in monetary policy?

A. Monetarism

B. Rational Expectations

C. Classical

D. Keynesian

Answer: B. Rational Expectations

140. Which of the following schools believes monetary policy is ineffective in the long run?

A. Classical

B. Keynesian

C. Monetarist

D. New Keynesian

Answer: A. Classical

141. Price stickiness is an important assumption in:

A. Classical economics

B. Monetarism

C. New Keynesian economics

D. Rational Expectations

Answer: C. New Keynesian economics

142. Monetary neutrality implies:

A. Money affects employment

B. Money affects output

C. Money affects productivity

D. Money affects only nominal variables

Answer: D. Money affects only nominal variables

143. Which economist argued for a constant growth rate of money supply?

A. Keynes

B. Lucas

C. Friedman

D. Hicks

Answer: C. Friedman

144. According to Keynes, monetary policy is ineffective during:

A. Liquidity trap

B. Deflation

C. Inflation

D. Boom

Answer: A. Liquidity trap

****

References:

- Seth, M.L. *Monetary Economics*. Educational Publishers, Agra.
- Jhingan, M.L. *Monetary Economics*. Vrinda Publication (P) Ltd., Delhi.
- Gupta, S.B. *Monetary Economics*. S. Chand & Co., New Delhi.
- Gupta, R.D. *Monetary Economics and Financial System*. Kalyani Publishers, Ludhiana.
- Reserve Bank of India. *Handbook of Statistics on Indian Economy*, *Reports on Currency and Finance*.

****